

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

Cognex Corporation,
Plaintiff,

v.

Civ. No. 06-1040 (JNE/JJG)
ORDER

VCode Holdings, Inc., VData LLC,
Acacia Research Corporation, and
Veritec Inc.,

Defendants.

James T. Nikolai, Esq., and Peter G. Nikolai, Esq., Nikolai & Mersereau, and Martin J. O'Donnell, Esq., and Thomas C. O'Konski, Esq., Cesari & McKenna, LLP, appeared for Plaintiff Cognex Corporation.

Edward E. Casto, Jr., Esq., and Jonathan T. Suder, Esq., Friedman, Suder & Cooke,¹ and Lora Mitchell Friedeman, Esq., Fredrikson & Byron, PA, appeared for Defendants VCode Holdings, Inc., VData LLC, Acacia Research Corporation, and Veritec Inc.

This patent lawsuit concerns data matrix symbols and reader products. Cognex Corporation brings this action against VCode Holdings, Inc., VData LLC, Acacia Research Corporation, and Veritec Inc., (collectively Defendants) seeking a declaration that U.S Patent No. 5,612,524 (filed March 18, 1997) ('524 patent) is not infringed by Cognex or its customers for its data matrix symbol reader products, and that, in any event, the allegedly infringed claims of the '524 patent are invalid and the patent is unenforceable. Cognex also asserts claims against Defendant Acacia Research Corporation (Acacia) for violation of the Minnesota Uniform Deceptive Trade Practices Act (MDTPA), Minn. Stat. §§ 325D.43-.48 (2006), and for business defamation. Defendants VCode Holdings (VCode) and VData assert a counterclaim against

¹ Subsequent to oral argument on the pending motions, Edward E. Casto, Jr., Esq., counsel for Defendants, informed the Court that he is now an attorney with the law firm of Nelson Bumgardner Casto, P.C.

Cognex alleging infringement of claims 1, 4, 5, 19, 22, 25, 27, 28, and 29 of the '524 patent (collectively "Asserted Claims").

Before the Court are two motions for partial summary judgment brought by Cognex. The first seeks summary judgment on Count II of the First Supplemental Complaint due to invalidity; the second on Count III due to unenforceability. Also before the Court is Defendants' motion for partial summary judgment on the issue of infringement regarding claims 1, 4, 5, and 29, and summary judgment on Cognex's claims against Acacia for violation of the MDTPA and for business defamation. For the reasons stated below, Cognex's motions are granted. Defendants' motion for partial summary judgment on infringement of certain asserted claims is denied as moot. Defendants' motion for summary judgment is granted as to Cognex's claim against Acacia for violation of the MDTPA and denied as to Cognex's claim of business defamation against Acacia.

I. INTRODUCTION

A. The Invention

The United States Patent and Trademark Office (PTO) issued the '524 patent, titled "Identification Symbol System and Method with Orientation Mechanism," on March 18, 1997. The '524 patent issued from a continuation application and claims priority to U.S. Application Ser. No. 07/125,616, now U.S. Patent No. 4,924,078 (issued May 8, 1990) (the '078 patent), filed on November 25, 1987.² The '524 patent is directed to a symbol identification system that

² The '524 patent issued from U.S. Application Ser. No. 08/412,091, which is a continuation of Application Ser. No. 239,932, May 9, 1994, abandoned, which is a continuation of Ser. No. 97,629, July 27, 1993, abandoned, which is a continuation of Ser. No. 892,409, Jun. 1, 1992, abandoned, which is a continuation of Ser. No. 423,900, Oct. 19, 1989, abandoned, which is a continuation of Ser. No. 125,616, Nov. 25, 1987, Pat. No. 4,924,078. Veritec previously owned both the '078 and '524 patents. Veritec assigned the patents to VCode, which is a wholly-owned subsidiary of Veritec. In 2003, VCode granted an exclusive license to VData

includes a computer-readable two-dimensional data matrix symbol with an orientation mechanism that can be attached or affixed to an object and a method and apparatus for capturing an image of the symbol and identifying the object from the information in the symbol. A two-dimensional data matrix symbol represents an improvement over traditional bar codes in that it has much higher information density and can contain significantly more data than a traditional bar code. Also, unlike a bar code, a two-dimensional data matrix symbol does not have a preferred scanning direction and is capable of being read from various orientations.

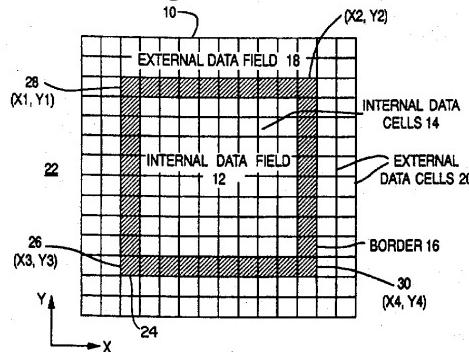
Claim 1 of the '524 patent is representative of the asserted symbol system claims of the '524 patent.³ It reads:

An identification symbol system for an object, comprising: an identification symbol comprising: a substrate associated with the object; a computer readable data matrix data field formed on said substrate and providing symbol information for uniquely identifying the symbol; and computer readable orientation means, formed on said substrate and positioned adjacent said field on at least one side, for providing orientation information from a substantially omnidirectional three-dimensional orientation of capture; and a device for capturing the symbol, identifying the object from the symbol information.

An example of the identification symbol, as asserted and depicted in these claims is reproduced in Figure 1. *See First Supplemental Complaint at Ex. A.*

in the patents, in exchange for receipt of a certain percentage of the net profits and proceeds obtained by VData in the exploitation and enforcement of the patents. VData is a subsidiary of Acacia.

³ Claim 1 requires that the symbol comprise “orientation means.” Claims 4 and 5 both require that the symbol comprise “an orientation border.” Claim 29 requires that the symbol comprise “an orientation indicator.” The orientation element of claim 22 states in its entirety as follows: “orientation information, formed on said substrate, indicating an orientation of said data field from any direction of image capture.”

Figure 1

Claims 19 and 25 both address an apparatus for capturing and reading the identification symbol. Claim 19 asserts:

An apparatus, comprising: image capture means for obtaining image data representing an image field including a symbol comprising a rectilinear data matrix field of information data cells and an orientation border on at least one side of the data field; and decoding means for processing the image data to identify the border, determine orientation and timing information from the border and sample the data cells.

Claim 25 more generally asserts:

An apparatus, comprising: image capture means for obtaining image data representing an image field including a symbol comprising a data field of information data cells and orientation means for indicating an orientation of said field; and decoding means for processing the image data to determine orientation and sample the data cells.

Finally, claim 27, an independent claim, and claim 28, a dependent claim, assert a decoding process. Claim 27 reads:

A decoding process, comprising the steps of: (a) scanning a symbol comprising a data field of information data cells and orientation means for indicating an orientation of the field; (b) identifying the location of the data cells; and (c) decoding the symbol from the located data cells.

Claim 28 reads:

A process as recited in claim 27, wherein step (b) comprises: (b1) determining an orientation of the symbol; and (b2) determining a timing of the data cells.

B. The present litigation

Cognex manufactures and sells products designed to capture and read two-dimensional data matrix symbols. Cognex alleges Defendants have improperly attempted to enforce the '524 patent extra-judicially by contacting Cognex's current and potential data matrix reader customers and threatening them with patent litigation unless they purchase a license under the '524 patent. Cognex claims these actions have affected its ability to solicit and retain customers. Cognex also alleges that individuals associated with Acacia told certain third parties that Cognex attempted to purchase patents from Veritec, including the '524 patent, for an eight-figure amount. Cognex contends these statements were defamatory and made in violation of the MDTPA. Cognex seeks a declaration that its symbol reader products do not infringe the '524 patent. Cognex also seeks a declaration that the Asserted Claims of the '524 patent are invalid and that the '524 patent is unenforceable.

In their counterclaim, Defendants allege that various Cognex symbol reader products infringe the Asserted Claims. These products include the DataMan ID Reader series products, the In-Sight Reader series products, the DVT Vision Sensor series products, the VisionSpy Reader series products, and VisionPro systems. Defendants also allege that Cognex infringes the '524 patent by using data matrix symbols and Cognex symbol readers to identify its own products during their manufacture, packaging, and distribution.

II. DISCUSSION

Summary judgment in a patent case, as in other cases, is proper "if the pleadings, the discovery and disclosure materials on file, and any affidavits show that there is no genuine issue as to any material fact and that the movant is entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c); *see Nike Inc. v. Wolverine World Wide, Inc.*, 43 F.3d 644, 646 (Fed. Cir. 1994).

The movant “bears the initial responsibility of informing the district court of the basis for its motion,” and must identify “those portions of [the record] which it believes demonstrate the absence of a genuine issue of material fact.” *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986). If the movant satisfies its burden, the party opposing the motion must respond by submitting evidentiary materials that “set out specific facts showing a genuine issue for trial.” Fed. R. Civ. P. 56(e)(2); see *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986). In determining whether summary judgment is appropriate, a court must look at the record and any inferences to be drawn from it in the light most favorable to the party opposing the motion. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986).

A. Claim construction

The first step in any invalidity or infringement analysis is claim construction. See *Rockwell Int'l Corp. v. United States*, 147 F.3d 1358, 1362 (Fed. Cir. 1998). In its *Markman* Order, issued October 9, 2007, the Court construed the disputed claim terms of the '524 patent. *Cognex Corp. v. VCode Holdings, Inc.*, Civ. No. 06-1040, 2007 WL 2973834 (D. Minn. Oct. 9, 2007). Three of these terms are particularly relevant here. First, the Court determined that the term “computer readable orientation means” recites the function “providing orientation information from a substantially omni-directional three-dimensional orientation of capture” with a corresponding structure of “computer readable borders, cells, or cell patterns.” Next, the Court construed the term “providing orientation information from a substantially omni-directional three-dimensional orientation of capture” as “providing orientation information from substantially any direction of capture.” Finally, the Court construed the term “a device for capturing the symbol, identifying the object from the symbol information,” as recited in claims 1, 4, 5, 22 and 29, as “a device that captures symbol image and identifies an object upon which the

symbol is affixed, attached, etched, and/or engraved from the information contained within the symbol.” Here, the Court adopted the construction that the parties agreed upon prior to the *Markman* hearing after finding it to be derived from the language in the claims. In doing so, the Court rejected additional orientation-related language urged by Cognex.

Despite the Court’s *Markman* Order, the parties continue to dispute the meaning of the term “a device for capturing the symbol, identifying the object from the symbol information.” Cognex argues that the omni-directional three-dimensional orientation aspect of the claimed invention resides exclusively in the structure of the claimed *symbol* and that the *device* for capturing and decoding the symbol is a generic device that is not required to possess the ability to read and decode a symbol from a substantially omni-directional three-dimensional orientation of capture. Defendants respond that the Asserted Claims, as well as the preferred embodiments in the written description of the ’524 patent, disclose a capturing device that must be capable of receiving the omni-directional three-dimensional orientation information provided by the symbol and decoding that information. They contend that it would be improper to read this limitation out of the Asserted Claims.

Defendants incorrectly interpret the “device for capturing” language, as written and construed. While the written description of the ’524 patent suggests that a goal of the inventors was to invent a system comprised of a two-dimensional symbol and a process for capturing and decoding the symbol without first having to orient it in a predefined configuration, it is well-settled that the claims of a patent, not the written description, define the scope of the patentee’s right to exclude. *See STX, LLC v. Brine, Inc.*, 211 F.3d 588, 591 (Fed. Cir. 2000) (“[W]here a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation.”)

(quoting *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997)); *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433 (Fed. Cir. 1988). “Where a specification does not require a limitation, that limitation should not be read from the specification into the claims.” *Intel Corp. v. U.S. Int’l. Trade Comm’n*, 946 F.2d 821, 836 (Fed. Cir. 1991) (citations omitted).

The language reciting the symbol capturing device in claims 1, 4, 5, 22, and 29 of the ’524 patent is broad and general. It does not include language limiting the device to one that specifically utilizes particular information in the symbol in identifying the object from the symbol information. It describes a generic device. Furthermore, the language does not require the capturing device to actually make an orientation determination or use the orientation information contained within the symbol in identifying the object from the symbol information. The language merely requires a device that captures the symbol and identifies the object from the information that is in the symbol.⁴

Defendants’ assertions that the preferred embodiments read an orientation-reading limitation on the capturing device are unavailing. “While examples disclosed in the preferred embodiment may aid in the proper interpretation of a claim term, the scope of a claim is not necessarily limited by such examples.” *Ekchian v. Home Depot, Inc.*, 104 F.3d 1299, 1303 (Fed. Cir. 1997). In any event, it is well-established that claims are not to be interpreted by adding

⁴ On December 4, 2007, the PTO issued an Office Action that comports with this construction. In the Office Action, the reexaminer concludes that these claims recite a generic device that does not require the use of the omni-directional three-dimensional orientation information provided by the symbol to identify the object from the symbol information. In fact, the patent reexaminer goes further and concludes that “the claim does not even require that the captured symbol be used to identify the object. It merely requires that the object be identified from the symbol information.” Office Action in Ex Parte Reexamination, Control No. 90/007,980, at 14 (U.S. Patent and Trademark Office, Dec. 4, 2007). The Office Action rejected claims 1-5, 8-10, 15, 20-24, and 26-32 of the ’524 patent under 35 U.S.C. § 102(b) as anticipated by prior art, namely the Vericode brochure. The reexamination process continues and, as of the date of this Order, a final action has not yet been issued.

limitations appearing only in the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc), *cert. denied*, 546 U.S. 1170 (2006).

Here, the specification of the '524 patent describes multiple preferred embodiments. In addition to the identification of an object from a two-dimensional symbol that is both rotated and skewed about the image capture plane, the specification includes an embodiment that identifies an object from a two-dimensional symbol when the symbol is in a pre-determined and fixed orientation. *See* '524 patent, col.5, l.63 through col.6, l.12. It also includes an embodiment that identifies an object from a two-dimensional symbol that is in a plane parallel to the image capture plane but is rotated. *See* '524 patent, col.3, ll.44-62; col.5, ll.15-35. Each of these embodiments relies on the claimed two-dimensional data matrix symbol. This symbol, as claimed and construed, is a symbol that is capable of providing omni-directional three-dimensional orientation information through a border, data cells, or cell patterns. However, according to the specification, the receiving and utilization of the omni-directional three-dimensional orientation information is not a necessary part of the identification process for every embodiment described.⁵ The limiting language of the claims requires only that the symbol be capable of *providing* the omni-directional three-dimensional orientation information.

Nothing in the prosecution history indicates that the patentees meant to exclude from the scope of the device claimed every device that was not capable of reading the omni-directional three-dimensional information in the symbol. *See SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004) (indicating that “prosecution history may not be used to infer

⁵ For example, the specification teaches that the capture and identification of a symbol in an environment in which the symbol is strictly aligned with the image plane can be accomplished through a timing determination but without a determination of orientation. '524 patent, col.5, l.63 through col.6, l.8. The specification further teaches that in an environment where the exact location of the symbol is known in advance along with the symbol size and data density, the orientation border of the symbol can be “completely eliminated.” '524 patent, col.6, ll.8-12.

intentional narrowing absent a clear disavowal of claim coverage.” (quoting *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1327 (Fed. Cir. 2003))). When the patentees added “a device for capturing the symbol and identifying the object from the symbol information” to the symbol system claims near the end of the application process, they did so in broad terms and did not include specific claim language requiring the device to receive and to use the omni-directional three-dimensional orientation information in the symbol in order to identify the object to which the symbol is attached or affixed.

In sum, as written and construed, asserted claims 1, 4, 5, 22, and 29 recite the invention of a symbol identification system comprising (1) a two-dimensional data matrix symbol affixed to a substrate associated with an object that contains information for uniquely identifying the object and computer readable borders, cells, or cell patterns for providing orientation information from substantially any direction of capture, and (2) a device that captures the symbol image and identifies the object to which the symbol is affixed, attached, etched, and/or engraved from the information contained within the symbol. In addition, although asserted claims 19, 25, and 28 recite decoding processes that include a determination of symbol orientation, none of these claims requires that the orientation determination be from a substantially omni-directional three-dimensional orientation of capture. Asserted claim 27 recites a decoding process that does not require an orientation determination at all.

B. Cognex’s motion for summary judgment on the grounds of invalidity

Cognex seeks a declaration that the Asserted Claims are invalid under 35 U.S.C. § 102(b) (2000).⁶ Cognex alleges that prior to the critical date of the ’524 patent,⁷ Defendants offered for

⁶ 35 U.S.C. § 102(b) provides that “[a] person shall be entitled to a patent unless … (b) the invention was patented or described in a printed publication in this or a foreign country or in

sale and publicly used systems for capturing, orienting, and decoding two-dimensional data matrix identification symbols that fully embodied the invention later claimed in the Asserted Claims. Cognex also contends the written description of the '524 patent fails to enable the invention, and asserts that the invention was anticipated by prior art. Defendants assert the symbol identification system invention recited in the Asserted Claims could not have been on sale or publicly used prior to the critical date because critical aspects of the invention were not fully developed until after November 25, 1986. Defendants assert that the pre-critical date activity relied upon by Cognex to establish invalidity under section 102(b) fails to demonstrate the sale or public use of a product that embodied all of the limitations recited in the Asserted Claims. Defendants further argue the invention recited in the '524 patent is fully enabled by the written description and that the invention was not anticipated by any of the prior art referenced by Cognex.

1. Relevant activities occurring prior to November 25, 1986⁸

In late 1985, Veritec began discussions with Advanced Vision Systems, Inc. (AVS), for the development of a video/optical scanning and processing system (VOSP System) that could find, orient, and read two-dimensional data matrix symbols and report the decoded results. A memorandum dated November 13, 1985, sent from Veritec President Robert Stander to co-inventors Carl Sant' Anselmo (Carl Anselmo) and Robert Sant' Anselmo (Robert Anselmo)

public use or on sale in this country, more than one year prior to the date of the application for patent in the United States.”

⁷ Here, the filing date of the '078 patent, to which the '524 patent claims priority, was November 25, 1987. Therefore, the critical date of the '524 patent for the purposes of section 102(b) is November 25, 1986.

⁸ The facts pertinent to the allegations of invalidity are either undisputed or construed in a light most favorable to non-movant Defendants. *See Anderson*, 477 U.S. at 255. In addition, Defendants raised objections to the summary claim charts submitted in the report of Cognex expert Dr. David Allais. The Court gives no evidentiary weight to these summary charts here.

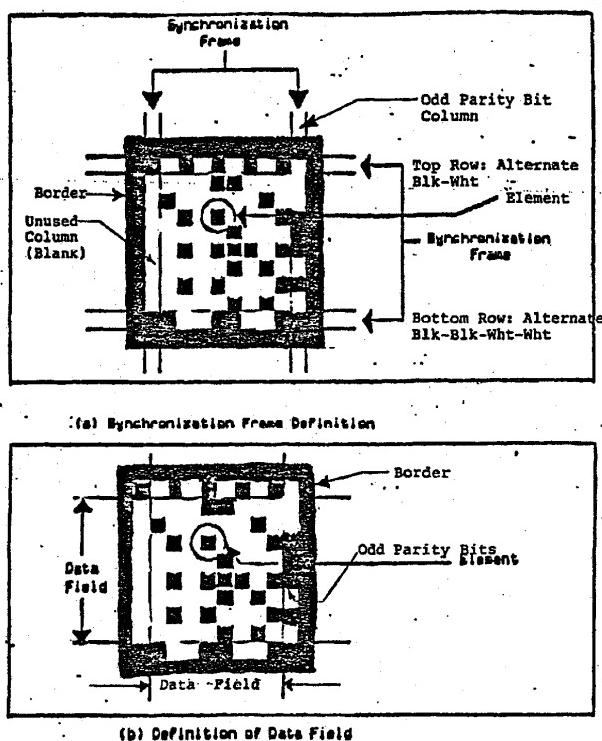
states, "Carl delivered to Advanced and reviewed in detail a specification covering the requirements for a scanner to read Vericodes." AVS software programmer Shawn Makanvand participated in these discussions.

In January 1986, Veritec and AVS entered into a Memorandum Agreement for the development of the VOSP System. The technical specification attached to the agreement required the system to scan a two-dimensional object, decode the information contained in the object, and report the decoded information using four main components: a camera system, a lighting system, a data processor, and a monitor. The object to be captured was described in the specification as follows:

Object Definition: The object shall be as defined in Figure 3-3. The code will be placed within a high contrast border. The veri-code printed within the border may have a mis-registration of $\frac{1}{4}$ the size of an element. The object shall consist of a synchronization frame data field. The characteristics of the synchronization frame shall remain fixed for all objects appearing within the field of view . . . Each code shall have an orientation mark in the upper left hand corner. The data field shall vary from one object to the next.

Element Definition: Within the area defined for the Object . . . the object shall be comprised of 100 grid elements. Some of the grid elements (36 total) shall represent the "synchronization frame" while the remainder shall represent the "data field" (64 total). The last element in each horizontal row with the exception of the first and tenth rows, will be a parity bit (odd) to aid in determining if the information read in that row was correct. All of the elements will be equal in size to a tolerance agreed upon between parties. Refer to Figure 3-3 (a) and (b).

Figure 3-3 (a) and (b), *see* Declaration of Kevin Gannon In Support of Plaintiff's Motion for Partial Summary Judgment on Count II at Ex. 5, are reproduced in Figure 2 below:

Figure 2**Figure 3-3. Element, Synchronization Frame, and Data Field Definition.**

AVS subsequently developed the software for the VOSP System. Makanvand testified that the VOSP system included a camera that captured a black and white binary image of the specified object, referred to as a symbol or "Vericode," when it was affixed to a piece of paper. The system's software program, running on a microcomputer, then decoded the symbol from the captured image using the information in the symbol. The information from the decoded data cells could then be displayed on a monitor and logged to a computer file.

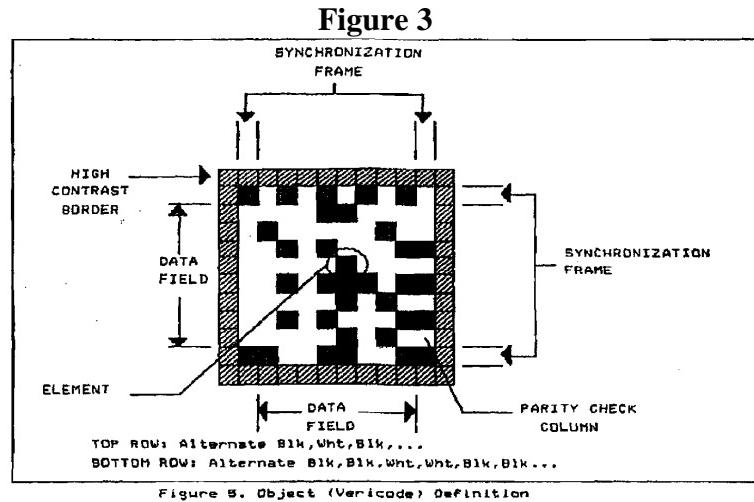
AVS delivered the VOSP system to Veritec in March of 1986. The delivered system included a camera, a frame grabber, and capturing and decoding software. An internal Veritec memorandum dated March 24, 1986, and addressed to Carl Anselmo states that "the AVS equipment has been set up in the conference room and is up and running." To demonstrate the functionality of the system, AVS also provided Veritec with a computer monitor and a

phonograph turntable. Patrick Dalton, Veritec's National Accounts Sales Manager in 1985 and 1986, and Robert Anselmo both testified that they observed the delivered VOSP system successfully capture and decode data matrix symbols printed on pieces of paper when they were carefully aligned with the capturing camera. The VOSP System specification also required the ability to capture and decode a symbol that was rotated up to fifteen degrees or skewed up to ten degrees in relation to the image capture plane. There is conflicting testimony in the record regarding the extent of the VOSP System's ability to decode rotated or skewed symbols.

On February 18, 1986, while the VOSP System was under development, Carl Anselmo sent a document titled "Portable Scanning and Printing System" (PSAPS document) to his brother and co-inventor Robert. The PSAPS document provided a description of a hand-held sensor head that could capture and decode an object. In language similar but more specific than the language in the VOSP System specification, the PSAPS document defines the object as follows:

Object Definition: The object shall be as defined in Figure 5. The object, hereafter called a "Vericode" will be placed within a high contrast border. The Vericode printed within that border may have a mis-registration of $\frac{1}{4}$ the size of an element. The Vericode shall consist of a synchronization frame and a data field. The characteristics of the synchronization frame shall remain fixed for all objects appearing within the field of view . . . Each Vericode will have a fixed orientation sequence in the first and last rows as shown in Figure 5. The data field will vary from one Vericode to another.

Figure 5 of the PSAPS document, *see* Declaration of Kevin Gannon In Support of Plaintiff's Motion for Partial Summary Judgment on Count II at Ex. 35, is reproduced in Figure 3 below:



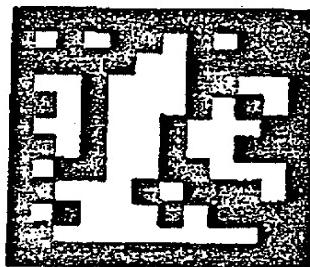
The PSAPS document goes on to describe the “Element” aspect of the object.

Element Definition: Within the area defined for the Vericode . . . the Vericode shall be comprised of 100 grid elements. The peripheral elements (36 in number) representing the synchronization frame, shall be used to identify Vericode orientation and detect and correct element transmission and scanning errors. The inner elements (64 in number) shall contain variable information. The last element in each row [sic] horizontal row, with the exception of the first and tenth rows, will be a parity bit (odd) to aid in error detection. All elements shall be of the same size.

The PSAPS document includes requirements for a capturing component, an image processing and decoding component, and an output and display component. It also describes a printer component for printing Vericodes onto labels. The PSAPS document describes the hand-held sensor head as capable of acquiring and processing a Vericode “independent of the direction” that the sensor passes over the Vericode. The specification further describes this capability as the ability to process the Vericode “when the sensor head is passed over it from left-to-right, right-to-left, top-to-bottom, or bottom-to-top.” The specification also requires the system to be capable of capturing and decoding Vericodes that are “skewed +/- 15 degrees about a plane perpendicular to the axis through the sensor head” and “rotated about this axis by +/- 15 degrees.”

On February 24, 1986, Dalton sent a letter to the Chairman of Scientific Games, Inc., stating Veritec's recently printed "new product literature" was enclosed. One of the enclosures, titled "Vericode Identification System," describes a system that includes a computer generated verification code called a "Vericode" that can be affixed or etched onto objects and then verified using "existing computer techniques." The brochure indicates that "the same type of technology used in scanning bar codes is applied with the Vericode Identification System" and depicts a bar code reader. The Vericode depicted in the brochure, *see* Declaration of Kevin Gannon In Support of Plaintiff's Motion for Partial Summary Judgment on Count II at Ex. 66, is reproduced in Figure 4 below:

Figure 4



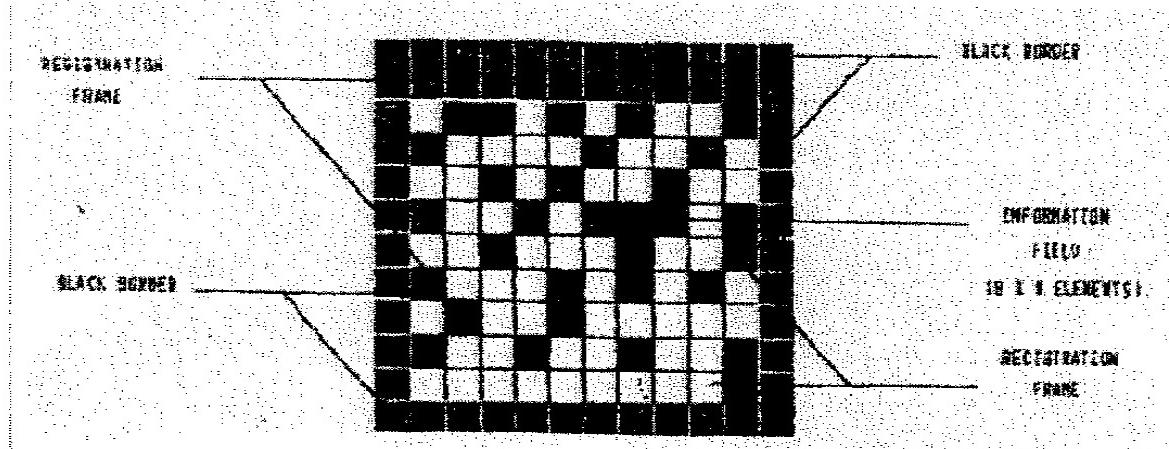
In June 1986, Dalton and Robert Anselmo demonstrated the functionality of the VOSP System at the June 1986 Vision '86 trade show in Detroit, Michigan. To demonstrate the system, two-dimensional data matrix symbols affixed to sheets of paper were attached to a turntable and the turntable was put into motion. An image of a symbol was captured as it moved in front of a camera positioned adjacent to the turntable. The symbol image was then decoded by the system's software and the decoded information, a sequence of numbers, was displayed on a monitor. The VOSP System was demonstrated again at the October 1986 SCAN-TECH '86 trade show in San Francisco, California.

On September 10, 1986, a document titled "A New Technique for the Generation and Acquisition of Compact Machine Readable Codes and Symbols" was sent to Veritec by facsimile. The sender is identified as Carl Anselmo and the "Notes" section of the facsimile cover sheet includes the following: "Preliminary Copy of Patent disclosure to be entered in safe deposit box." This document provides a detailed description of a highly compact machine readable data matrix "comprised of binary data bits suitably arranged in geometric array form" called a "Vericode." According to the preliminary disclosure, a Vericode includes a data field and a "registration or synchronization frame" placed around the data field to "guarantee that the code is read right side up and not upside down, etc." The disclosure specifically states:

If the registration frame is made up to be unique in the sense that its upper edge is distinguishable from the lower edge and the left half from the right half, and a knowledge of this uniqueness is imparted to the Vericode reader, then correct Vericode reading can always be guaranteed.

The depiction of the Vericode included in the preliminary patent disclosure *see* Declaration of Kevin Gannon In Support of Plaintiff's Motion for Partial Summary Judgment on Count II at Ex. 36, is reproduced as clearly as possible in Figure 5 below:

Figure 5



On September 24, 1986, Veritec filed its annual 10K report with the Securities and Exchange Commission (SEC) for the fiscal year ending June 30, 1986. The signatures of Veritec's President, Robert Stander, and Veritec's Executive Vice President, Robert Anselmo, appear on the report. Under the section titled "Research and Development" the report states as follows:

Vericodes – The Company has developed a Video Scanning and Processing ("VOSP") System to visually capture, process and decode Vericodes. After the Vericode is decoded, the VSOP System will output the decoded data for external processing by the VOSP operator. The Company has also developed and owns Vericode generating software, as well as the software that controls the VSOP System.

On November 11, 1986, Dalton sent a letter to the Chairman and Managing Director of Norton & Wright Limited (Norton & Wright), proposing that Veritec design, deliver, test, and install a system for identifying and tracking lottery sheets using Veritec's "proprietary VERICODE™ symbology" and the "VERICODE™ IDENTIFICATION SYSTEM." The letter included a "Proposal" indicating the lottery sheet tracking system would include 500 VERICODE™ symbol images, software for capturing an image of a symbol and processing the captured image, software for decoding the symbol image to identify the lottery sheet identification information stored within it, and hardware for scanning, processing, and sorting the symbols. The proposal also included a software license for the VERICODE™ system software and provisions concerning fixtures, installation and training, and testing of the system. Dalton's letter contained a price quotation that totaled \$36,000, and included itemized descriptions with specific quantities and prices, as well as payment terms and delivery terms. Norton & Wright subsequently agreed and Veritec delivered and installed the lottery sheet tracking system in July 1987.

2. Section 102(b) Invalidity: On-sale bar/ public use

The Patent Act grants a presumption of validity to patents. 35 U.S.C. § 282 (2000). This presumption can only be overcome by clear and convincing evidence to the contrary. *See, e.g.*, *WMS Gaming, Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1355 (Fed. Cir. 1999). The Patent Act also prevents issuance of any patent for an invention that was on sale or used in public in the United States more than one year before the date on which the patent application was filed. 35 U.S.C. § 102(b). Thus, a party may overcome the presumption of a patent's validity by presenting clear and convincing evidence of facts showing that the patented invention was offered for sale or used in public before such critical date. *EZ Dock, Inc. v. Schafer Sys., Inc.*, 276 F.3d 1347, 1351 (Fed. Cir. 2002). A determination that a product was placed on sale or used in public prior to the critical date is a conclusion of law based on underlying findings of fact. *Linear Tech. Corp. v. Micrel, Inc.*, 275 F.3d 1040, 1047 (Fed. Cir. 2001) (on-sale bar); *Baxter Int'l, Inc. v. Cobe Labs., Inc.*, 88 F.3d 1054, 1058 (Fed. Cir. 1996) (public use bar).

a. On-sale bar

The overriding concern of the on-sale bar is an inventor's attempt to commercialize his invention beyond the statutory term. *Netscape Comm. Corp. v. Konrad*, 295 F.3d 1315, 1323 (Fed. Cir. 2002). “The on-sale bar applies when two conditions are satisfied before the critical date.” *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 67 (1998). “First, the product must be the subject of a commercial offer for sale.” *Id.* “Second, the invention must be ready for patenting.” *Id.*

i. Ready for patenting

The parties devote significant attention to the second part of the *Pfaff* test. Thus, the Court first turns to the ready for patenting requirement. The purpose of the ready for patenting inquiry is to determine if there was “an invention” at the time of the sale. *Invitrogen Corp. v.*

Biocrest Mfg., L.P., 424 F.3d 1374, 1379 (Fed. Cir. 2005). This requirement may be satisfied in at least two ways: by proof of reduction to practice before the critical date or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention. *Pfaff*, 525 U.S. at 59; *EZ Dock*, 276 F.3d at 1351.⁹

Cognex argues that the invention of the Asserted Claims was ready for patenting because the pre-critical date documents prepared by Carl Anselmo were sufficiently specific to enable the practice of the invention. Defendants respond that none of these documents describe a system capable of decoding a symbol from an omni-directional three-dimension orientation of capture and did not, therefore, sufficiently enable the invention. Defendants also assert that the inventors did not possess any kind of prototype of the claimed invention prior to November 25, 1986. Thus, Defendants argue, the invention of the Asserted Claims was not ready for patenting within the meaning of *Pfaff*.

The Court has already determined that the omni-directional three-dimensional orientation aspect of the claimed invention pertains only to the structure of the symbol in asserted claims 1, 4, 5, 22, and 29, and is not a limitation recited on the system's capturing device. Therefore, whether the pre-critical date documents and diagrams presented by Cognex describe a system capable of decoding a symbol from substantially any direction of capture is not material to the

⁹ Neither party expressly raises the issue of the definition of a “person of ordinary skill in the art” for the ’524 patent. Defendants’ expert, Dr. Val DiEuliis, opined that such a person in the 1986-87 time frame is “an individual with a B.S. degree in electrical engineering, computer engineering, or computer science with two to three years of experience in the development of microprocessor systems including hardware and software.” Plaintiff’s expert, Dr. Allais, opined that this person’s qualifications should also include “the development of algorithms or software for decoding bar code symbols or recognizing objects.” For the purposes of Cognex’s motions for partial summary judgment, the Court applies the definition provided by Dr. DiEuliis. See *Anderson*, 477 U.S. at 255.

application of the on-sale bar or public use bar. The proper inquiry is whether pre-critical date drawings and diagrams prepared by the inventors were sufficiently specific to allow a person skilled in the art to practice the claimed invention. *See Pfaff*, 525 U.S. at 59, 62-63; *EZ Dock*, 276 F.3d at 1351.

The VOSP System specification described the requirements for a video/optical scanning and processing system. The specification described the object to be scanned as a two-dimensional matrix of one hundred equally-sized grid elements, or data cells, surrounded by a high contrast border. Thirty-six of these data cells comprised a fixed synchronization frame. The other sixty-four data cells, the “data field,” contained information that varied from one object to the next such that the cells could be coded to uniquely identify the symbol and thus distinguish the object to which the symbol would be affixed from all others.

Makanvand testified that the distinguishing features of the data matrix symbol were the solid border around the date field, the synchronization cells within the border, and a fixed corner cell pattern of black upper left, lower left and lower right corners and a white upper right corner. According to Makanvand, the fixed pattern of cells in the corners and in the synchronization frame could provide information about the size of the individual data cells in the matrix and information about the object’s orientation. Makanvand testified that the VOSP System software did not need to use the synchronization frame for determining orientation because the ten/fifteen degree skew and rotation requirements of the VOSP System did not require its use. He testified that in the VOSP System the synchronization cells were only used to provide information about the size of the individual date cells in the symbol.

The testimony and pre-critical date descriptions of co-inventors Carl Anselmo and Robert Anselmo corroborate Makanvand’s testimony regarding the presence of structures capable of

providing orientation information in the VOSP System symbol. Robert Anselmo testified that the synchronization frame element of a Vericode symbol allows a determination of the orientation of the symbol, and that, more generally, data cells within the border of the Vericode allow one to determine orientation of the symbol. Like Makanvand, he testified that there was no need to put internal orientation data cells in the VOSP System code because the code was already aligned with the capturing camera and not in need of orienting.

The language Carl Anselmo used to describe the symbol in the VOSP System specification is almost identical to the object and element description he provided in the PSAPS document dated February 18, 1986. The PSAPS document, however, expressly indicates that the object's synchronization frame can be "used to identify Vericode orientation and detect and correct element transmission and scanning errors." The fixed pattern of the synchronization frame identified in the PSAPS document, a top row that alternates white and black and a bottom row that alternates black-black-white-white, is identically depicted and described in the diagram of the symbol in the VOSP System specification.

Carl Anselmo reiterated a symbol's ability to provide orientation information through these structural elements in the preliminary patent disclosure delivered to Veritec on September 10, 1986. This disclosure provides a detailed description of a highly compact machine readable data matrix code called a "Vericode." It describes the Vericode's data field and a registration or synchronization frame that "guarantee[s] that the code is read right side up and not upside down, etc." It specifically discloses that when uniqueness is built into the registration frame such that each edge of the symbol is different from the others, and "knowledge of the uniqueness is imparted to the Vericode reader, then correct Vericode reading can always be guaranteed." The diagram of the Vericode in the preliminary disclosure, *see* Figure 5 above, includes a solid

border surrounding the Vericode. A synchronization frame is located just inside the border, and includes a unique pattern of black and white data cells for each side of the symbol.¹⁰

In sum, whether or not the VOSP System could actually decode symbols from substantially any orientation of capture is immaterial here, as it is the structure of the symbol that is critical in examining the presence of this limitation in asserted claims 1, 4, 5, 22, and 29. The solid border surrounding the data matrix and the fixed cell patterns in the four corners of the matrix are clearly visible in the VOSP System specification's symbol diagrams. The unused synchronization frame is also clearly visible and specifically identified in the specification's depictions of the symbol. The Court concludes that there is no genuine dispute of material fact that the VOSP System specification described a symbol that included a border, cells, or cell patterns that embodied the orientation means, orientation border, orientation indicator, and orientation information required in the symbol element recited in asserted claims 1, 4, 5, 22, and 29. Thus, the Court concludes that the VOSP System specification provided a description of a data matrix symbol that is sufficiently specific for a person skilled in the art to construct a symbol that fully embodied each of the limitations recited on the symbol in asserted claims 1, 4, 5, 22, and 29.

Cognex argues that because the pre-critical date drawings and diagrams disclosed everything one skilled in the art needed to know about the structure of the identification symbol in order for it to provide "orientation information from a substantially omni-directional three-dimensional orientation of capture," the Court should conclude that these drawings and diagrams were also sufficiently specific to enable a person skilled in the art to practice the capturing and

¹⁰ The Court notes that the testimony and expert report of Defendants' expert, Dr. DiEuliis, confirms that the symbol's border as well as data cells within the data matrix can provide orientation, size, and distortion information that allows a symbol to be reliably read even if it is upside-down or sideways with respect to the focal plane of the capturing device.

decoding processes recited in the other asserted claims. Cognex argues the '524 patent and Defendants' own expert, Dr. DiEuliis, advocate that once the symbol structure is known, one skilled in the art need only refer to well known principles in the prior art to understand how to determine the orientation of a captured symbol. Therefore, Cognex asserts, the invention of the Asserted Claims was ready for patenting prior to the critical date.

The Court agrees. The four-step decoding process recited in asserted claims 19 and 25 includes a microprocessor programmed to (1) search for the edge of the symbol; (2) determine the orientation of the symbol using "known graphics techniques when the location of three corners of the symbol is known," or "standard slope formulas or the algorithm in Fig. 5 when the symbol is in a plane parallel to the image capture plane,"¹¹ or "well-known rotational decomposition algorithms when the symbol plane and the image plane are not parallel and the size of the symbol is known;" (3) calculate the size and spacing of the data cells within the symbol; and (4) sample the data cells.¹²

Defendants' expert, Dr. DiEuliis, repeatedly indicated in his testimony regarding the sufficiency of the enablement of the '524 patent that a person skilled in the art in the first half of the 1980s would have known to use the information provided by the symbol's border and the location of the symbol's corners in conjunction with standard slope formulas and known graphic

¹¹ Figure 5 of the '524 patent is a flow chart representation of an algorithm that (1) searches for the symbol edge and validates it; (2) searches for three corners and validates them; (3) defines/calculates timing sequence (the size and spacing of the data cells); (4) reads the contents of the individual cells for decoding; (5) verifies the correctness of the read; and (6) translates the cell data to user form and transmits it for further processing.

¹² These claims also require "image capture means." Pursuant to the *Markman* Order, the structure of this means-plus-function limitation is "a two-dimensional reader, camera, video camera, line scan image device, or other imaging device with sufficient resolution to discern the individual data cells, or other equivalent imaging device." *Cognex Corp. v. VCode Holdings, Inc., et al.*, Civ. No. 06-1040, 2007 WL 2973834, slip op. at 9 (D. Minn. Oct. 9, 2007). There is no dispute that the VOSP System embodied this element of the Asserted Claims.

techniques to determine the orientation of a symbol when the symbol was captured in two dimensions. The description of the decoding process Makanvand developed for the VOSP System in early 1986 after his discussion with Carl Anselmo and review of the VOSP System specification demonstrates his understanding of these concepts:

We are talking about a camera looking at a code and the image of that camera is stored in the computer's memory and at that time we were talking about a binary image so everything was black and white. So the memory contents called pixel, what I was proposing was to scan downward from top to bottom of the image and also scan sideways from left to right of the image. . . . By scanning if you will in memory I was creating a virtual shadow that gave a footprint of the where the code resides in the screen. So if you scan downward and everything is white then there was no code. If you hit something that's black then you know where the beginning of the code is and you follow that until you get to the other side and it turns white again.

So by creating these so-called shadows, I was able to then identify where the code was going to be horizontally and vertically within the screen. That doesn't tell you how it's oriented but it tells you where it's roughly going to be. So that was the first step.

And then the second step is once you know roughly where it is then going in and zeroing in on that area and finding then the corners of the code, what is the upper left, what is the upper right, lower left, lower right and again you are kind of scanning down looking for black which is where the contents is [sic] and where there is white there is no content until you reach those borders that we talked about. And then you've now identified where these four coordinates are for upper left, upper right, lower left and lower right corners.

By this point I've identified where the code is fully and then we are ready to start going into the code to look at the contents. . . .

The next step is finding the cell size or those little squares that I talked about, we refer to those as a cell, and you have to find out how many cells there are and therefore be able to read the contents of the code. So you know there is a border around it and per agreement we had decided that the border was going to be the same thickness as the cells. So by starting to again scan through the border and down as well as left to right you can then find where there is a transition from black to white that tells you the thickness of the border and therefore the thickness of a cell, and because the cells are all square you then know both the height and width of each cell. . . .

Once you know the thickness of the border and the thickness of the cells and you know the entire width and height of the code because you've determined the four corners of the code, you know the height and width, you know the cell size and then by dividing out it tells you how many elements there are inside of the code, basically how many rows there are, how many columns there are and where the location of each element is within that code. . . .

One of the requirements that we had to meet was to allow for I believe it was a 10 or 15 degree skew or rotation in the code. Although there was talk of eventually doing a fully, you know, handling a code that's rotated up to 360 degrees at the time the system specifications as I remember them was to handle about 10 or 15 degrees. So you have an upper left, an upper right, let's just stay with those two coordinates, you know from their Y coordinates if they are the same then the code is perfectly straight. If they are not the same then you know that the code is skewed. Therefore you know the angle of skew or rotation so based on those coordinates, you can calculate the angle. And then when you are scanning across to either find the thickness of the border or eventually locate the cells you can scan at that angle. . . .

[For example] [y]ou have let's say a length which is 100 pixels or 100 dots long and you know that the angle is let's say 10 degrees. 10 degrees translates into so many dots down and so many dots over. You basically create a stair step effect. If the angle is zero, you go straight across. If it is not zero then you calculate how far you have to go before you step up to the next, you know, stair step if you will. So you go across let's say five pixels, up on, across five pixels, up one, across five, up one, based on whatever the angle of calculation is. You calculate how many over, how many up and then that's how you can determine how you are going to scan along a particular angle. . . .

I believe I double-checked it with the lower left and lower right [corners] just to make sure that the calculation was consistent. But, yeah, you can determine all of that from the upper left and upper right [corners].

Makanvand's recitation of this decoding process demonstrates that his discussions with Carl Anselmo and the VOSP System specification were sufficiently specific to enable him to practice the decoding process recited in the Asserted Claims. Claims 1, 4, 5, 22, and 29 require "a device that captures the symbol image and identifies the object from the information contained within the symbol," and these limitations are clearly present in Makanvand's decoding program. Also present are the limitations recited in asserted claim 27, which require a decoding process that scans a symbol, identifies the location of the data cells, and decodes the symbol

from the located data cells. Claims 19, 25, and 28 require an orientation determination and a timing determination. Makanvand's description of comparison of the y-axis coordinates to identify and calculate any necessary angle for scanning embodies the orientation limitation as it has been construed. His explanation of using the border thickness and height and width of the symbol to determine individual cell size and location embodies the timing limitation as it has been construed.

Defendants argue that there is a genuine issue of material fact regarding whether the software program written by Makanvand could actually decode symbols that were not perfectly aligned with the plane of the capturing camera, and they assert that no such software existed prior to the critical date to enable the invention of the Asserted Claims. This argument is without merit. First, Defendants overstate the conflict in the testimony. Makanvand and Dalton testified that informal testing was performed on the VOSP System when it was delivered to Veritec. This testing demonstrated that the system could successfully capture and decode symbols that were rotated or skewed to some extent, but could not decode symbols that were upside-down or omnidirectional. Their testimony merely indicates that no formal measurements of the specific rotation and skew were taken during the testing process, not that the system was only functional as a perfectly-aligned system. Co-inventor Robert Anselmo testified the codes had to be precisely aligned with the camera, but, when asked if the VOSP System was capable of reading a system if it was skewed or tilted to some degree, he could not "recall the tolerances." Co-inventor Carl Anselmo testified that the VOSP System could not read Vericodes from multiple orientations if multiple orientations meant "skewed." There is no testimony from Carl Anselmo in the record regarding the VOSP System's ability to capture and decode Vericodes that were parallel to the image capture plane but slightly rotated.

Moreover, the software program for decoding rotated or skewed symbols need not have been written prior to the critical date for the invention to be ready for patenting under *Pfaff*. In *Robotic Vision Systems Inc. v. View Engineering, Inc.*, 249 F.3d 1307, 1311 (Fed. Cir. 2001), the Federal Circuit Court of Appeals affirmed a lower court's determination that an invention can be ready for patenting when an inventor's explanation is given in a manner sufficiently specific to enable a person skilled in the art to understand and write software code necessary to implement a method of the invention. In other words, a software program need not be written prior to the critical date for an invention utilizing the software to be deemed ready for patenting.

Robotic involved a patent directed to a method for scanning leads on integrated circuit devices. The method included a process called "full-tray scanning." *Id.* at 1308. The software to carry out this full tray scanning was not written one year prior to the filing of the patent application. *Id.* at 1311. However, prior to that critical date, a co-inventor explained the invention to a software programmer at Robotics and asked him to write the software for full-tray scanning. *Id.* The programmer did so, but not until after the critical date. *Id.* The district court concluded that the co-inventor's explanation was given in a manner sufficiently specific to enable a person skilled in the art to understand and write the software code for the full-tray scanning method. *Id.* The Federal Circuit Court of Appeals agreed. Citing *Pfaff*, the Court concluded that the invention was ready for patenting prior to the critical date, stating "whether or not the software needed to implement the claimed method existed at the time of the disclosure is irrelevant, provided the disclosure of the invention was made prior to the critical date and was sufficiently specific to enable a person skilled in the art to practice the invention." *Id.*

Here, Carl Anselmo discussed the invention with Makanvand and provided a technical specification for the system in early 1986. The data processor section of the VOSP System

specification described a row-by-row processing scheme for reading and decoding the contents of each individual data cell. During the discussions a programming approach for accomplishing the requirements of the system was discussed, reviewed, and agreed to as “potentially workable.” Makanvand then developed a decoding process for the system that he described as capable of decoding a symbol that was slightly skewed or rotated in relation to the image capture plane by scanning to find the symbol’s border and the coordinates of the symbol’s corners and using them to determine the angle of the symbol’s orientation. This information led to the use of an algorithm that calculated the angle of rotation and used a stair-step formula to scan the symbol at the identified angle to locate and read the individual data cells. Recalling that the orientation determination methods recited in asserted claims 19 and 25 include the determination of the symbol’s orientation using standard slope formulas when the symbol is in a plane parallel to the image capture plane, the Court concludes that Makanvand’s description of the VOSP System’s decoding process clearly evidences his understanding of the invention’s orientation determination process in a manner sufficient to practice the decoding process claimed in the invention of these asserted claims. Indeed, Dr. DiEuliis testified that standard slope formulas can be used “to determine the rotation” of a symbol and “anyone of ordinary skill in the art would certainly understand that you can take a symbol, take it out of the plane, take a picture of it . . . and you can use these standard formulas on that.”

The Court concludes that Cognex has established by clear and convincing evidence that the descriptions and diagrams in pre-critical date discussions and documents prepared by Carl Anselmo were sufficiently specific to enable a person skilled in the art to practice the invention of the Asserted Claims. Specifically, the discussions between Carl Anselmo and Makanvand and the VOSP System specification provided in early 1986 were sufficiently specific to enable

Makanvand, a software programmer, to understand and practice the decoding of symbols as claimed in the invention of the Asserted Claims. Thus, the Court concludes that the invention of the Asserted Claims was ready for patenting prior to November 25, 1986, the critical date of the '524 patent.¹³

Finally, as previously noted, both Robert Anselmo and Dalton testified that the VOSP System delivered in March 1986 successfully captured and decoded Vericodes in a fixed-alignment environment. Defendants do not dispute that the VOSP System software program preformed as described by Makanvand in a fixed-alignment environment. An invention is reduced to practice when it works for its intended purpose. *Honeywell Int'l Inc. v. Universal Avionics Sys. Corp.*, 488 F.3d 982, 997 (Fed. Cir. 2007) (citing *Eaton v. Evans*, 204 F.3d 1094, 1097 (Fed. Cir. 2000)). An invention is said to work for its intended purpose when there is a demonstration of its workability or utility. *Id.* (citing *Fujikawa v. Wattanasin*, 93 F.3d 1559, 1563 (Fed. Cir. 1996)). The “up and running” VOSP System demonstrated the workability and utility of the invention claimed in asserted claims 1, 4, 5, 22, 27, and 29. Makanvand testified that this system captured and decoded two-dimensional symbols known as Vericodes affixed to sheets of paper when the symbols were pre-aligned with the capturing camera. Both co-inventor Robert Anselmo and Dalton also testified to this capability. Co-inventor Robert Anselmo expressly stated that the VOSP System sufficiently “proved the concept can you read a Vericode symbol with a CCD [charged coupled device] camera and decode it with software.” The fact

¹³ The VOSP System specification described a camera system and data processor that includes a camera “capable of being focused on an object resident within its field of view and producing a video image of the object for subsequent processing by the data processor or computer,” and a microprocessor based computer system capable of controlling the operation of the system, processing the image data, and outputting processed image data to external data processing equipment. The parties have not contested the sufficiency of this description and the Court concludes that clear and convincing evidence establishes that it fully embodies the capturing device and image capture means recited in asserted claims 1, 4, 5, 19, 22, 25, and 29.

that the VOSP System might have only been operable in a pre-aligned capturing environment does not alter the determination that the claimed invention was reduced to practice—an invention can be considered reduced to practice “even though it may later be refined or improved.” *New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1297 (Fed. Cir. 2002) (indicating that “while improvements were possible and ultimately manufactured into the fourth prototype, these deficiencies in the third prototype did not prevent reduction to practice of the invention actually claimed”). The Court concludes that the actual delivery of the working VOSP System to Veritec in March of 1986 is clear and convincing evidence of a reduction to practice of the invention claimed in asserted claims 1, 4, 5, 22, 27, and 29. Under these circumstances, Cognex has met its burden of demonstrating that the invention of the Asserted Claims was ready for patenting before the critical date of the ’524 patent.

ii. Commercial offer for sale

The Court thus turns to the first prong of *Pfaff*, which requires that the claimed invention be the “subject of a commercial offer for sale.” 525 U.S. at 67. Cognex submits numerous letters it claims are offers from Veritec to sell the invention of the Asserted Claims prior to November 25, 1986. Defendants contend these letters do not represent commercial offers because they do not meet the definition of a commercial offer for sale and because Veritec did not possess any product to sell at the time the letters were allegedly sent.

To be a commercial offer, the offer must be sufficiently definite that another party could make a binding contract by simple acceptance, assuming consideration. *See Netscape*, 295 F.3d at 1323. In determining such definiteness, the Court reviews the language of the proposal in accordance with the principles of general contract law. *Group One, Ltd. v. Hallmark Cards, Inc.*, 254 F.3d 1041, 1048 (Fed. Cir. 2001). Here, many of the offer letters purportedly sent by

Veritec are unsigned and Cognex has failed to provide clear and convincing evidence that they were actually sent by Veritec. In addition, many of the letters appear to contain marketing and promotional information only. Such letters are not evidence of an offer of sale. *See id.* (indicating that mere advertising and promotion of a product may be nothing more than an invitation for offers). However, the November 11, 1986 letter, signed by Dalton and sent to Norton & Wright, warrants closer attention.

The Norton & Wright letter included a detailed proposal to design and deliver a lottery sheet identification system that would read Vericodes affixed to Norton & Wright's lottery sheets to ensure that the sheets were in the proper sequence and orientation during the printing process. The system was comprised of Veritec's "proprietary VERICODE™ symbology" and the "VERICODE™ IDENTIFICATION SYSTEM." The proposed system included Vericode symbols and the hardware and software for capturing, processing, and decoding the symbols. The proposal included provisions for a software license for the VERICODE™ system software. It addressed installation, training, and testing of the system. The included "Quotation" stated a specific price. It listed the primary components of the proposed system and provided corresponding quantity and price information for each. The quotation stated specific payment terms of "50% Upon Receipt of Order" and "50% Upon Acceptance," and indicated that the "quotation is effective for 30 days from the date shown above [November 11, 1986]."

The Court concludes that under general contract principles there is no genuine issue of material fact in dispute that the Norton & Wright proposal dated November 11, 1986, was sufficiently definite such that another party could make a binding contract by simple acceptance, assuming consideration. *See Netscape*, 295 F.3d at 1323. The Norton & Wright letter is clear

and convincing evidence of a commercial offer from Veritec within the meaning of 35 U.S.C. § 102(b).

Under the first prong of *Pfaff*, Cognex must also establish that the offer to Norton & Wright was an offer to sell the invention of the Asserted Claims. *See Vanmoor v. Wal-Mart Stores*, 201 F.3d 1363, 1366 (Fed. Cir. 2000) (indicating that an invalidating sale must involve a device that “actually embodied or rendered obvious the patented invention” (quoting *Evans Cooling Sys., Inc. v. Gen. Motors Corp.*, 125 F.3d 1448, 1451 (Fed Cir. 1997))). To do so, Cognex must demonstrate that the system offered for sale fully anticipated the invention of the Asserted Claims or would have rendered the invention obvious by its addition to the prior art. *See Allen Eng’g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1136, 1652 (Fed. Cir. 2002).

Cognex argues that the “VERICODE™ symbology” and the “VERICODE™ IDENTIFICATION SYSTEM” components of the proposed lottery sheet tracking system that Veritec offered to sell to Norton & Wright was, in reality, an application of the VOSP System’s symbol identification system custom developed to suit the business needs of Norton & Wright. Cognex asserts that the Norton & Wright system thus fully embodied the symbol identification system recited in the Asserted Claims, and that the offer to Norton & Wright was, therefore, an offer to sell the invention of the Asserted Claims. The Court agrees.

Contrary to Defendants’ contentions that the Norton & Wright proposal does not contemplate the claimed invention because it does not provide a sufficient description of the symbol, the proposal plainly identifies the system’s symbol as a VERICODE™. This description is sufficient. *See Abbott Labs. v. Geneva Pharm., Inc.*, 182 F.3d 1315, 1319 (Fed. Cir. 1999) (indicating that there “is no requirement that a sales offer specifically identify all of the characteristics of an invention offered for sale”). Co-inventors Robert Anselmo and David

Hooper, the Veritec software programmer involved in the installation of the Norton & Wright system, both testified that the Norton & Wright system was a “fixed-alignment” or “linear system” that captured and decoded two-dimensional symbols that were presented to the capturing camera in a fixed and pre-determined orientation. Robert Anselmo also testified that Veritec’s “aligned Vericode” was the same symbol that was used in the VOSP System.

Moreover, the question is not whether the sale discloses the invention at the time of the sale, but whether the sale relates to a device that *embodies* the invention. *Id.* According to the Operator’s Manual, the Norton & Wright system was designed to “read and decode VERICODEs™ that are printed on foil stock.” The manual states that “VERICODE™ is an abbreviation for ‘verification code.’ Each VERICODE™ uniquely identifies the printing plate identification number so that faults during the printing process may be automatically detected at time of production.” The Operator’s Manual indicates that each VERICODE™ is a “10x12 matrix of equal sized data cells surrounded by a black registration frame” with “120 data cells including parity row and parity column (99 data cells for data).” The registration frame is defined in the manual as “a border of data cells different in contrast from the background and the same color as a data cell defined as binary ‘1,’ that defines the top, left, bottom, and right edges of the VERICODE™.” Hooper testified that such a “black border” was a part of the symbol used in the Norton & Wright system, although it was not used for orientation determinations because the Norton & Wright system was an “aligned system” with “little tolerance for visual rotation.”

The Court concludes that the symbol in the proposed Norton & Wright system was a two-dimensional data matrix with orientation means in the form of borders, cells, or cell patterns capable of providing orientation information from substantially any direction of capture. *Cf. id.* (stating that “if a product that is offered for sale inherently possesses each of the limitations of

the claims, then the invention is on sale"). Like the VOSP System, the orientation mechanism was not utilized by the software, but the evidence clearly establishes that the symbol's structure included the ability to provide orientation information from substantially any direction of capture. Thus, there are no genuine issues of material fact in dispute that the symbol of the proposed Norton & Wright system possessed each of the limitations of the symbol recited in asserted claims 1, 4, 5, 22, and 29.

Similarly, the capturing device of the proposed Norton & Wright system possessed all of the limitations of the asserted device. Dalton and Hooper both testified that the device, a camera, was to capture the image of the symbol as it passed by on the printing press in a pre-determined orientation and identify the object to which it was affixed—here a particular lottery sheet—from the symbol information. This is identical to the capturing and decoding process of the then-existing VOSP System. There is no genuine issue of material fact that the proposed Norton & Wright system fully embodied the device limitation recited in asserted claims 1, 4, 5, 22, and 29 and the image capture means limitation recited in asserted claims 19 and 25.

As for the system's decoding process, the description in the proposal is limited. It refers to "image capture/processing software" that "rebuilds" the captured image into a "pure black-and-white image" that is then decoded. Veritec states that a "more detailed description of how this software works will be supplied after receipt of Purchase Order." In a subsequent letter, dated November 20, 1986, Dalton responded to Norton & Wright's request for this further detail as follows:

This [statement] was not meant to imply that the code listing would be delivered to Norton & Wright, but rather that a more detailed description of the decoding process would be given – and that not immediately after the receipt of Purchase Order. VERICODE™ decoding algorithms are unique to each individual VERITEC customer and are not ready for any type of distribution for some time after receipt of a Purchase Order. Aside from that, in our previous discussions I

have point out that the software is “part and parcel” of the proprietary nature of the system and is distributed on a “right to use” basis only. No right to monitor or modify is implied. If we had not, up to this time, protected our system in this manner, we would not now have anything to offer Norton & Wright.”

Nonetheless, Robert Anselmo testified that prior to 1987, the decoding software provided in the VOSP System was the extent of Veritec’s ability to actually decode a Vericode symbol. Hooper testified that the system was an aligned system designed to capture and decode symbols that were aligned in a pre-determined fashion. Dalton testified the techniques and algorithms used by the VOSP System formed the foundation for fixed-alignment systems subsequently offered to customers, including the fixed-alignment lottery sheet system proposed to Norton & Wright. As already discussed, the undisputed testimony of Makanvand, the author of the VOSP System software, establishes that the decoding process of the VOSP system embodied all of the limitations recited in asserted claims 19, 25, 27, and 28.

The Court concludes that there is no genuine factual dispute that the fixed-alignment symbol identification environment of the proposed Norton & Wright system possessed all of the limitations of the invention claimed in the Asserted Claims. As a fixed-alignment system, the proposed system would fully carry out one of the embodiments recited in the ’524 patent specification. *See ’524 patent, col. 5, l.63 through col.6, l.12.* “It is not necessary to show that all embodiments of the invention were on sale more than one year before filing. It is sufficient to show that one embodiment of the invention was offered for sale during the one-year period.”

Scaltech, Inc. v. Retec/Tetra, LLC, 269 F.3d 1321, 1330 (Fed. Cir. 2001). The fact that Veritec enhanced the invention by developing software that enabled a device to decode symbol information from a substantially omni-directional three-dimensional orientation of capture does not preclude the application of the on-sale bar because this capability is not a claimed limitation of the invention and because changes to a product that do not address the matter claimed will not

preclude the application of the on-sale bar. *See New Railhead*, 298 F.3d at 1297-98 (perfecting or completing an invention to the point of determining that it will work for its intended purpose ends with an actual reduction to practice). Viewing the record in the light most favorable to Defendants, the Court concludes Cognex has demonstrated by clear and convincing evidence that the invention of the Asserted Claims was on sale within the meaning of 35 U.S.C. § 102(b) because it was offered for sale prior to November 11, 1986, the critical date of the '524 patent.

Defendants assert the proposed Norton & Wright system was not an offer for sale within the meaning of section 102(b) because the system was intended for experimental purposes. A sale that is primarily for experimental purposes, as opposed to commercial exploitation, does not raise an on-sale bar. *Allen Eng'g*, 299 F.3d at 1652; *see also Pfaff*, 525 U.S. at 64 (“The law has long recognized the distinction between inventions put to experimental use and products sold commercially.”). The experimental use exception is intended to give the inventor an opportunity to reduce the invention to practice. *See Cont'l Plastic Containers v. Owens Brockway Plastic Prods., Inc.*, 141 F.3d 1073, 1079 (Fed. Cir. 1998).

In distinguishing commercial from experimental sales, a court must consider a variety of factors, including: (a) the necessity for public testing; (b) the amount of control over the experiment retained by the inventor; (c) the nature of the invention; (d) the length of the test period; (e) whether payment was made; (f) whether there was a secrecy obligation; (g) whether records of the experiment were kept; (h) who conducted the experiment; (i) the degree of commercial exploitation during testing; (j) whether the invention reasonably requires evaluation under actual conditions of use; (k) whether testing was systematically performed; (l) whether the inventor continually monitored the invention during testing; and (m) the nature of contacts made with potential customers. *See EZ Dock*, 276 F.3d at 1357 (Linn, J., concurring). Because these

factors are illustrative rather than mandatory, a court should look to the facts of its specific case to determine what is relevant. *Amgen, Inc., v. Chugai Pharm. Co.*, 927 F.2d 1200, 1213 (Fed. Cir. 1991).

Here, there is no evidence that public testing was required to determine that the invention of the Asserted Claims performed for its intended purpose. The patent indicates that the purpose of the invention is to provide a symbol that can be detected from any orientation and does not require a preferred direction of scanning, and a system for capturing and decoding the contents of the symbol. Veritec contracted with AVS to develop such a system and Robert Anselmo, testified that the VOSP System “proved the concept can you read a Vericode symbol with a CCD camera and decode it with software.” The VOSP System, like the proposed Norton & Wright system, decoded Vericodes in a fixed-alignment environment. Thus, the utility of the invention had been demonstrated in the VOSP System delivered to Veritec in March 1986. As the Court already determined, the VOSP System constituted a reduction to practice of asserted claims 1, 4, 5, 22, 27, and 29. It is well settled that once an invention is reduced to practice, there can be no experimental use negation. *See, e.g., Zacharin v. United States*, 213 F.3d 1366, 1369 (Fed. Cir. 2000); *Atl. Thermoplastics Co. v. Faytex Corp.*, 5 F.3d 1477, 1480 (Fed. Cir. 1993).

Moreover, the evidence regarding testing of the Norton & Wright system only demonstrates that testing of the system took place during its installation. Cf. *EZ Dock*, 276 F.3d at 1352 (“Experimentation evidence includes tests needed to convince the inventor that the invention is capable of performing its intended purpose in its intended environment.”). There is no dispute that Hooper and Dalton participated in the installation of the Norton & Wright system, and Dalton’s testimony that Norton & Wright’s chief engineers conducted the testing of the system with respect to Norton & Wright’s lottery sheet printing needs stands undisputed. There

is no evidence suggesting that Norton & Wright and Veritec collaborated to test and modify the proposed system during its development. Dalton's November 20, 1986 letter demonstrates that Veritec viewed the decoding software to be its own proprietary property that it would customize according to the needs of Norton & Wright after an agreement to do so in exchange for payment had been reached. The only evidence of testing by Veritec concerns difficulties that arose during installation of the system associated with the highly reflective foil substrate used on the lottery sheets. Dalton testified that after some lighting adjustments were made to accommodate the foil substrate, the Norton & Wright system delivered in June of 1987 "worked perfectly." The evidence indicates that the installation process lasted one week.

Experimental use negation applies if there is genuine experimentation directed to perfecting the features of the claimed invention. *See Cont'l Plastic*, 141 F.3d at 1079. Highly reflective substrate is not an element of the claimed invention. According to Hooper, prior to the Norton & Wright deal, Veritec could capture Vericodes on paper so it turned to harder to read surfaces to "remain competitive." In short, if an inventor can show "changes during experimentation that result in features later claimed in the patent application, this evidence is a strong indication that the activities of the inventor negated any evidence of premature commercial exploitation of an invention ready for patenting." *EZ Dock*, 276 F.3d at 1353. There is no evidence of any such experimentation and changes in the record here.

This evidence clearly and convincingly establishes that the lottery sheet tracking system Veritec proposed to design and develop for Norton & Wright embodied each of the elements of the invention or rendered the invention obvious by its addition to the prior art and was, therefore, an offer to sell the invention of the Asserted Claims. *Cf. Allen Eng'g*, 299 F.3d at 1652. Thus, the Court concludes that Cognex has met its burden of demonstrating a commercial offer for sale

within the meaning of *Pfaff*, and has therefore demonstrated that the invention of the Asserted Claims was on sale and ready for patenting prior to November 25, 1986. *See Electromotive Div. of Gen. Motors Corp. v. Transp. Sys. Div. of Gen. Elec. Co.*, 417 F.3d 1203, 1209 (Fed. Cir. 2005) (proper evidence of a single offer is sufficient under the on-sale bar). Therefore, the Asserted Claims, claims 1, 4, 5, 19, 22, 25, 27, 28, and 29 of the '524 patent, are, as a matter of law, invalid under the on-sale bar set forth in 35 U.S.C. § 102(b), and Cognex is entitled to summary judgment on Count II of the First Supplemental Complaint.

b. Public use bar

Section 102(b) of the Patent Act creates a bar to patentability where, before the critical date, the invention was ready for patenting and was publicly used by a person other than the inventor who is under no confidentiality obligation to the inventor. *Invitrogen*, 424 F.3d at 1379. Public use is any one public use of the claimed invention in its natural and intended manner. *Id.* at 1380; *Lough v. Brunswick Corp.*, 86 F.3d 1113, 1119 (Fed. Cir. 1996) (indicating that the statutory phrase "public use" includes any use of the claimed invention by a person other than the inventor who is under no limitation, restriction, or obligation of secrecy to the inventor). As with the on-sale bar, a device that is publicly used before the critical date may bar patentability either by anticipation, if the device used includes every element of the later claimed invention, or by obviousness of the difference between the claimed invention and the device used to one skilled in the art. *Netscape*, 295 F.3d at 1321. Courts that have considered the demonstration of a later-claimed invention at a trade show have found that such demonstrations are public uses within the meaning of section 102(b). *See, e.g., Faulkner v. Baldwin Piano & Organ Co.*, 561 F.2d 677, 683 (7th Cir. 1977); *Agrizap, Inc. v. Woodstream Corp.*, 431 F. Supp. 2d 518, 535 (E.D. Pa. 2006); *Constr. Specialties, Inc. v. Arden Architectural Specialties, Inc.*, No. 4-90-536,

WL 303471 (D. Minn., Aug. 5, 1991); *see also Adenta GmbH v. OrthoArm, Inc.*, 501 F.3d 1364, 1371-73 (Fed. Cir. 2007) (affirming denial of motion for judgment as a matter of law seeking to overturn jury's verdict that displaying a product at a trade show constituted invalidating public use where patentee only disputed sufficiency of corroborating testimony and not whether display at trade show was public use). Whether a patent is invalid due to public use under section 102(b) is a question of law based on underlying questions of fact. *Netscape*, 295 F.3d at 1321.

Defendants concede that the VOSP System was demonstrated at the Vision '86 and SCAN TECH '86 trade shows, but argue that this "rudimentary system" did not have the omnidirectional three-dimensional aspects of the '524 patent. Therefore, Defendants contend, the VOSP System did not embody what was ultimately claimed by the patentees in the '524 patent. Pursuant to the reasoning set forth above, the Court concludes that the VOSP System demonstrated publicly at the Vision '86 and SCAN TECH '86 trade shows fully anticipated the invention either because it embodied each of the elements claimed in the Asserted Claims or because the differences between the claimed invention and the demonstrated device would have been obvious to one skilled in the art. There is no dispute that these trade show demonstrations occurred prior to the critical date of the '524 patent. Because the invention of the Asserted Claims was also ready for patenting prior to the critical date, as discussed above, the Court concludes that the record establishes by clear and convincing evidence that the invention of the Asserted Claims was used in public and was ready for patenting prior to November 25, 1986, rendering claims 1, 4, 5, 19, 22, 25, 27, 28, and 29 invalid pursuant to the public use bar set forth in 35 U.S.C. §102(b). Cognex is therefore entitled to summary judgment on Count II of the First Supplemental Complaint.

3. Section 102(b) Invalidity: Anticipation

Section 102(b) of the Patent Act provides that a person is entitled to a patent “unless the invention is patented or described in a printed publication in this or a foreign country … more than one year prior to the date of the application for patent in the United States.” 35 U.S.C. § 102(b). Anticipation is a question of fact and is determined by construing the claims and then comparing the claims to the prior art. *See In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1346 (Fed. Cir. 2002). “A determination that a patent is invalid as being anticipated under 35 U.S.C. § 102 requires a finding that ‘each and every limitation is found either expressly or inherently in a single prior art reference.’” *Id.* (quoting *Celeritas Techs., Ltd. v. Rockwell Int’l Corp.*, 150 F.3d 1354, 1360 (Fed. Cir. 1998)). “To anticipate, the reference must also enable one of skill in the art to make and use the claimed invention.” *Id.* Without much discussion, Cognex asserts that that the Asserted Claims are invalid under 35 U.S.C. § 102(b) because each and every element of these claims, as construed by the Court, is found in the Vericode brochure, as well as in each of two Japanese patents.

Simultaneous to this litigation is an ex parte reexamination of the ’524 patent. In an Office Action dated December 4, 2007, the reexaminer rejected claims 1-5, 8-10, 15, 20-24, and 26-32 as being anticipated by the Vericode brochure and therefore invalid under 35 U.S.C. § 102. *See* (Second Supplemental Decl. of Kevin Gannon at Ex. A). On February 1, 2008, the patent owners filed a response to the Office Action, in which they argue that the reexaminer erroneously equated the bar code scanner technology referenced in the Vericode brochure with the device for capturing element recited in the claims of the ’524 patent. In an argument similar to the one presented to and reject by this Court herein, the patent owners assert that the device for capturing element in the rejected claims properly includes the use by the capturing device of

the omni-directional three-dimensional orientation information provided by the symbol. As of the date of this Order, the reexaminer has yet to take additional action. Because the ex parte reexamination of the '524 patent on the grounds of anticipation by prior art is on-going, and because this Court has determined that the Asserted Claims are invalid pursuant to 35 U.S.C. § 102(b) on grounds wholly independent of any printed publications of prior art, the Court declines to consider whether the Asserted Claims are also invalid under section 102(b) as anticipated by prior publication.

C. Cognex's motion for partial summary judgment on the grounds of unenforceability

Cognex seeks a declaration that the '524 patent is unenforceable due to the inequitable conduct of the patentees during proceedings before the PTO. Cognex claims the patentees failed to disclose material information and made material misrepresentations to the PTO during the examination of the five continuing applications that led to issuance of the '524 patent as well as the application that led to the issuance of the '078 patent, Application Ser. No. 125,616 (the '616 application), to which the '524 patent claims priority. Defendants argue that the '078 patent is not relevant to the unenforceability claims in this matter. Defendants further deny that any inequitable conduct occurred during the examination of the applications for the '078 or '524 patents or that any inequitable conduct that the Court determines did occur was properly cured.

1. Legal Standards

Applicants for patents are required to prosecute patent applications in the PTO with candor, good faith, and honesty. *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1178 (Fed. Cir. 1995). A patent may be found unenforceable if inequitable conduct before the PTO has been committed in connection with it. *Dayco Prods., Inc. v. Total Containment, Inc.*, 329 F.3d 1358 (Fed. Cir. 2003). The party asserting inequitable conduct must prove a threshold level of

materiality and intent by clear and convincing evidence. *Molins*, 48 F.3d at 1178. While precedent urges caution in the grant of summary judgment with respect to a claim of inequitable conduct, summary judgment is not foreclosed. *See, e.g., Ferring B.V. v. Barr Labs., Inc.*, 437 F.3d 1181, 1187 (Fed. Cir. 2006); *Digital Control, Inc. v. Charles Mach. Works*, 437 F.3d 1309 (Fed. Cir. 2006) (“Determining at summary judgment that a patent is unenforceable for inequitable conduct is permissible, but uncommon.”).

Inequitable conduct arises by the failure to disclose material information or the submission of false material information with the intent to deceive. *Baxter Int'l, Inc. v. McGraw, Inc.*, 149 F.3d 1321, 1327 (Fed. Cir. 1998). The inequitable conduct analysis consists of two steps: (1) a determination of whether the conduct meets a threshold level of materiality and intent to mislead and (2) a weighing of the materiality and intent in light of all of the circumstances to determine whether the applicant’s conduct is so culpable as to render the patent unenforceable. *See Purdue Pharma L.P. v. Boehringer Ingelheim GMBH*, 237 F.3d 1359, 1366 (Fed. Cir. 2001).

Information is material if there is a substantial likelihood that a reasonable examiner would have considered the information important in deciding whether to allow the application to issue as a patent, or under the newer standard set forth in the 1992 amendment to PTO Rule 56. *See Digital Control*, 437 F.3d at 1314-16. Amended Rule 56 provides that information is material if it is not cumulative to information already of record or being made of record in the application, and (1) it establishes, by itself or in combination with other information, a *prima facie* case of unpatentability of a claim; or (2) it refutes, or is inconsistent with, a position the applicant takes in: (i) opposing an argument of unpatentability relied upon by the Office, or (ii) asserting an argument of patentability. 37 C.F.R. § 1.56(b) (2007). The more material the

omission, the less evidence of intent will be required in order to find that inequitable conduct has occurred. *Baxter*, 149 F.3d at 1327.

Materiality is not limited to prior art but embraces any information that a reasonable examiner would be substantially likely to consider important in deciding whether to allow an application to issue as a patent. *Bristol-Myers Squibb Co. v. Rhone-Poulenc Rorer, Inc.*, 326 F.3d 1226, 1234 (Fed. Cir. 2003). The examiner need not rely on a misrepresentation for the misrepresentation to be material. *See Molins*, 48 F.3d at 1180. A patentee need not cite an otherwise material reference to the PTO if that reference is merely cumulative or is less material than other references already before the examiner. *Baxter*, 149 F.3d at 1328.

Materiality does not presume intent, which is a separate and essential component of inequitable conduct. *Ferring*, 437 F.3d at 1191. Even if an omission is found to be material, the omission must also be found to have been made with the intent to deceive. *Id.* at 1190. “Intent commonly means: ‘Design, resolve, or determination with which [a] person acts[; a] state of mind in which a person seeks to accomplish a given result through a course of action.’” *Molins*, 48 F.3d at 1180-81 (quoting *Black’s Law Dictionary* 810 (6th ed. 1990)). Because of the ease with which an accused infringer may magnify oversights during patent prosecution, intent to deceive is determined in view of the realities of patent practice before the PTO and not as a matter of strict liability. *N. Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 939 (Fed. Cir. 1990).

Direct evidence of intent to mislead or deceive is rare. Intent may be inferred from clear and convincing evidence of the surrounding circumstances. *See Purdue Pharma L.P. v. Endo Pharm. Inc.*, 438 F.3d 1123, 1133-34 (Fed. Cir. 2006). The surrounding circumstances include the “facts and circumstances surrounding the applicant’s conduct.” *Molins*, 48 F.3d at 1181.

However, intent cannot be inferred solely from the fact that the material information was not disclosed; instead, there must be some factual basis for finding intent to mislead or deceive.

Endo Pharm., 438 F.3d at 1134. When determining intent, the court must weigh all of the evidence, including evidence of good faith. *Id.* Summary judgment is appropriate on the issue of intent if there has been a failure to supply highly material information and if the summary judgment record establishes that (1) the applicant knew of the information; (2) the applicant knew or should have known of the materiality of the information; and (3) the applicant has not proffered a credible explanation for the withholding. *Ferring*, 437 F.3d at 1191.

2. Relevance of the prosecution of the '078 patent

Conduct pertaining to one patent can taint another patent. *Agfa Corp. v. Creo Prods. Inc.*, 451 F.3d 1366, 1379 (Fed. Cir. 2006) (finding continuation patent unenforceable based on inequitable conduct found in the prosecution of the parent application); *Fox Indus., Inc. v. Structural Pres. Sys., Inc.*, 922 F.2d 801 (Fed. Cir. 1990) (indicating inequitable conduct “early in the prosecution may render unenforceable all claims which eventually issue from the same or a related application”). A patent that issues from a continuation or divisional application may be held unenforceable where (1) the applicant engaged in inequitable conduct with respect to the prosecution of an earlier related application in the chain leading to the challenged patent and (2) the inequitable conduct relates to the asserted claims of that patent. See *Consol. Aluminum Corp. v. Foseco Int'l Ltd.*, 910 F.2d 804, 812 (Fed. Cir. 1990); *Semiconductor EnergyLab. Co. v. Samsung Elecs. Co.*, 24 F. Supp. 2d 537, 543-44 (E.D. Va. 1998). However, later applications are not always tainted by the inequitable conduct of earlier applications. See *Agfa*, 451 F.3d at 1379. For example, “where the claims are subsequently separated from those tainted by inequitable conduct through a divisional application, and where the issued claims have no

relation to the omitted prior art, the patent issued from the divisional application will not also be unenforceable due to inequitable conduct committed in the parent application.” *Baxter Int’l*, 149 F.3d at 1332. The relevant inquiry is whether the “inequitable conduct in prosecuting the [parent] patent had immediate and necessary relation to the . . . enforcement of the [child] patents.” *Consol. Aluminum*, 910 F.2d at 812.

Cognex alleges that the patentees knowingly concealed and withheld information material to the examination of the ’616 application and that this inequitable conduct in the prosecution of the ’078 patent carries over to and taints the ’524 patent. Defendants argue that the examination of the ’616 application is not relevant to the enforceability of the ’524 patent because the two patents claim different subject matter. The Court disagrees with Defendants.

The application for the ’524 patent is a continuation application of the ’616 application, which issued as the ’078 patent. As such, its disclosure is essentially identical to that of the ’616 application, to which it claims priority. *See* 35 U.S.C. § 132 (2000). Indeed, these two patents share almost identical written descriptions with identical diagrams. In a 1991 Office Action issued early in the prosecution proceedings, the examiner of the application for the ’524 patent rejected numerous claims on the grounds that claims 1-18, 21, 22 and 29 in the ’078 patent “recite[] nearly word for word the claims pending in the instant application except for the omnidirectional scanning ability of the optical codes.” In response, the applicants claimed priority to the ’078 patent. In doing so, the patentees were able to eliminate a reference used by the patent examiner to reject the first continuation application for the ’524 patent.

Moreover, during the prosecution of the fifth and final continuation application of the ’524 patent, Application Ser. No. 412,091, the patent examiner rejected then pending claims 1-23 and 25-29 as obvious modifications of the invention claimed in the ’078 patent. In rejecting

these claims in an Office Action dated May 16, 1995, the patent examiner informed the patentees of the following:

This obviousness-type double patenting rejection is a judicially established doctrine based upon public policy and is primarily intended to prevent prolongation of the patent term by prohibiting claims not patentably distinct from claims in the first patent. A timely filed terminal disclaimer in compliance with 37 C.F.R. § 1.321(b) would overcome an actual or provisional rejection on this ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 C.F.R. § 1.78(d).

In response to this rejection, the patentees filed a terminal disclaimer. By doing so, the patentees avoided the rejection of the '524 patent's claims due to a finding that they were not patentably distinct from the claims of the '078 patent. *See In re Longi*, 759 F.2d 887, 892 (Fed. Cir. 1985) (indicating that “[t]his rejection prevents the extension of the term of a patent by prohibiting the issuance of the claims in a second patent not patentably distinct from the claims of the first patent”). Under these circumstances, the Court concludes that the claims of the '078 patent and the claims of the '524 patent are sufficiently related to connect and make relevant the conduct of the patentees during the prosecution of the '078 patent to the question of enforceability of the '524 patent.

3. Inequitable conduct during prosecution of '078 patent

A finding of inequitable conduct as to a single claim of a patent renders all claims of that patent unenforceable, even as to those claims not tainted by the inequitable conduct. *See Pharmacia Corp. v. Par Pharm., Inc.*, 417 F.3d 1369, 1374-75 (Fed. Cir. 2005). Cognex appears to direct its allegations of inequitable conduct to claim 1 of the '078 patent,¹⁴ which recites the following:

¹⁴ An embodiment of the symbol depicted in the '078 patent is identical to the symbol depicted in Figure 1 of the '524 patent reproduced above in Figure 1.

An identification symbol comprising: a computer readable data matrix data field providing symbol information for uniquely identifying the symbol; and a computer readable orientation border positioned adjacent said field on at least two sides.

Cognex submits a large amount of documentary evidence in support of its allegations of nondisclosure of material information by the applicants during the prosecution of the '078 patent. This evidence includes sales letters allegedly sent by Veritec to various automotive corporations prior to the critical date promoting the "Vericode Identification System." Many of these letters are unsigned; others bear the signature of Robert Dalton, Veritec's National Accounts Sales Manager. Even if the substance of these letters indicates a sufficient level of materiality, Cognex has failed to present evidence establishing that the patent applicants had specific knowledge of these letters at the time they were sent or during the examination proceedings before the PTO. Absent evidence of knowledge of the material information by the applicants, these letters do not provide clear and convincing evidence of inequitable conduct during the prosecution of the '078 patent. *See Endo Pharm.*, 438 F.3d at 1134.

On the other hand, the applicants' failure to disclose information about the public demonstrations of the Vericode technology, as reflected in the VOSP System, at trade shows prior to the critical date does sufficiently raise questions of inequitable conduct. The VOSP System, as delivered to Veritec in March 1986, actually demonstrated the decoding of a computer-readable symbol comprised of a data matrix with an orientation border and data cells. Co-inventors Robert Anselmo and Hooper both testified to this capability. As such, information about the public demonstration of the VOSP System would have been highly material to the examination of claim 1 of the '078 patent. Moreover, the VOSP System specification contained substantial information regarding the structure of Veritec's Vericode in March 1986, more than six months before the critical date of the '078 patent. Thus it was highly material to the '616

application examiner's consideration of patentability under 35 U.S.C. § 102(b). *See Fox Indus.*, 922 F.2d at 801 ("A finding that a withheld reference anticipates a claim in a patent satisfies the most stringent standard of materiality.").

The nondisclosure of the VOSP System is also problematic in the context of disclosures made to the '616 application examiner regarding the Norton & Wright sale. In an Information Disclosure Statement submitted by the applicants in June 1988, the applicants sought to remove the Norton & Wright system from the reach of the on-sale bar under 35 U.S.C. § 102(b). The applicants thus described the Norton & Wright sale as a test environment for "the development of a prototype system related to the invention." The prototype, according to the applicants, was an experimental system "designed to test the concept of a two-dimensional symbol as an information carrier in a practical environment." In making this disclosure, the applicants failed to also disclose to the examiner information about the VOSP System, which they knew had demonstrated the decoding of the same symbol technology in the same pre-aligned environment more than six months earlier. Veritec declared in its annual 10K report submitted to the SEC that as of June 30, 1986, the company "had developed a Video Scanning and Processing ("VOSP") System to visually capture, process and decode Vericodes." However, rather than disclose the VOSP System, the applicants withheld information about the "up and running" VOSP System from the examiner.

Defendants argue that the applicants fulfilled their duty of disclosure regarding Veritec's dealings with Norton & Wright during the prosecution of the '078 patent and that the examiner reviewed this information in determining that the '078 patent should issue. Defendants attempt to explain the applicants' failure to disclose the VOSP System information as cumulative to the Norton & Wright information because both systems could only capture symbols that were in

fixed-orientations, and as immaterial because the VOSP System lacked the three-dimensional orientation aspect of the invention of the Asserted Claims. These explanations do not satisfy the plausibility requirements of *Ferring*. Undisclosed references that had more relevant features than disclosed references are not cumulative of references before the examiner. *Labounty Mfg., Inc. v. U.S. Int'l Trade Comm'n*, 958 F.2d 1066, 1075 (Fed. Cir. 1992). The VOSP System specification clearly included significantly more detail regarding the structure of the data matrix symbol than the Norton & Wright proposal. The structure of the data matrix code identified the symbol's ability to provide orientation information from any direction of capture and the delivered system demonstrated the ability to capture and decode the symbol.

The Court concludes that the record sufficiently reveals that the applicants intended to deceive the examiner by withholding the VOSP System information. See *Endo Pharm.*, 438 F.3d at 1134. The record clearly establishes that Carl Anselmo had intimate knowledge of the capabilities of the orientation mechanism in the structure of the Vericode symbol. He demonstrated it in the VOSP System specification, the PSAPS document, and the preliminary patent disclosure, all of which he prepared prior to the critical date. He participated in the development of the VOSP System. He discussed its design and functionality with AVS in late 1985, delivered the technical specification from which the system was developed, and signed off on the completion and delivery of the system in April 1986. Robert Anselmo also had knowledge of the functionality of the VOSP System. He participated in the testing of the system, as well as the demonstration of the system at the Vision '86 trade show. At his deposition, he testified that the VOSP System delivered to Veritec in April 1986 "proved the concept can you read a Vericode symbol with a CCD camera and decode it with software." Armed with this knowledge, Robert Anselmo participated in discussions with Norton & Wright regarding the

design and delivery of the lottery sheet tracking system. With full knowledge of an already existing prototype of the symbol invention, as well as a decoding method, in the form of the VOSP System, the applicants represented to the examiner of the '616 application that the Norton & Wright system was a test system intended to develop a prototype of the invention without also disclosing the VOSP System for the examiner's consideration. The omission aided the avoidance of rejection of the proposed claims by the examiner under section 102(b).

The applicants' failures regarding disclosure of their Norton & Wright dealings is further evidenced in their lack of disclosure to the '616 application examiner that a separate examiner in a related patent application determined that the Norton & Wright sale was not an experimental use.¹⁵ Although the related patent application is expressly identified on the first page of the '078 patent application and the patent was again identified in an Information Disclosure Statement filed by the '616 applicants on June 6, 1989, there is no evidence that the patentees brought the specific determination, one directly adverse to the patentability of the invention asserted in the '078 patent, to the attention of the examiner of the '616 application. The Court concludes that a general reference to the related patent was not sufficient to bring the adverse decision on a related application to the attention of the examiner. *See Li Second Family Ltd. P'ship v. Toshiba Corp.*, 231 F.3d 1373, 1379 (Fed. Cir. 2000). Instead, the patentees withheld this highly material information from the examiner during the prosecution of the '078 patent.

Not only did the applicants fail to provide the examiner with a full record regarding their Norton & Wright dealings, but their submissions were also false and misleading. The

¹⁵ This determination would have constituted a statutory bar in the related application but for the fact that that application had a priority date sufficiently early to antedate the applicable critical date.

declaration from Robert Anselmo, submitted with a June 6, 1989 "Statement Under 37 C.F.R. § 1.56," stated the following:

7. The marketing referred to in the *Newsweek* article published April 21, 1986 was continued efforts by Veritec in obtaining a beta test site where the laser marking and symbol capture could be tested and proven as a concept.
8. During internal testing, which occurred around April 1986, it was discovered that the borderless symbol as represented by the North and Ward patents was not decodable as constructed. It became clear at that time that a method of determining the orientation of the two dimensional symbol was necessary. Efforts in this direction were started and culminated in confirmation of the operability of the orientation border in a strictly controlled Veritec Lab test system and validated in the beta test site conducted with Norton & Wright.

From the information and evidence in the record regarding the design and development of the VOSP System in late 1985 and early 1986, discussed above, it is obvious that these statements were both incomplete and false. Robert Anselmo testified at his deposition that the VOSP System delivered to Veritec in April 1986 "proved the concept" of Vericodes being captured by a camera and decoded with software. Veritec included the ability to scan, capture, and decode Vericodes using the VOSP System in the 10K report submitted to the SEC in September 1986 for the year ending June 1986. It is undisputed that the Vericode of the VOSP System contained an orientation border that could provide information for determining a symbol's orientation. The misrepresentation in Robert Anselmos declaration distorted the record before the examiner of the '616 application.

An inference of deceptive intent is inescapable under these facts and circumstances. *See Molins*, 48 F.3d at 1181. Carl and Robert Anselmo knew about the VOSP System, and, as officers of Veritec, knew or should have known of the adverse determination regarding the Norton & Wright sale in the related application, which involved a patent application by Veritec. Both knew or should have known of the materiality of the information given their involvement in

the development of the VOSP System and in Veritec's development and sales of its technologies. Co-inventor Hooper knew of Veritec's ability to read Vericodes on paper prior to the Norton & Wright sale, and knew Veritec sought to develop the Norton & Wright system, which required a foil substrate, because it would help Veritec stay competitive. The applicants should have known that full disclosure of the Norton & Wright sale during the prosecution of the '078 patent would have alerted the examiner to the need for further inquiry as to whether the Vericode technology claimed in the application for the '078 patent was in fact still experimental as of November 25, 1986, as asserted by the applicants. It is clear that the undisclosed information had the potential of providing independent grounds for rejection of at least one of the claims asserted in the '616 patent application.

Finally, the applicants have failed to provide a credible explanation for the withholding of highly material information from the patent examiner. *See Ferring*, 437 F.3d at 1191 (citing *Bruno Indep. Living Aids, Inc. v. Acorn Mobility Servs., Ltd.*, 394 F.3d 1354 (Fed. Cir. 2005) (finding that where the patentee "has not proffered a credible explanation for the nondisclosure . . . an inference of deceptive intent may fairly be drawn in the absence of such an explanation")); *id.* (citing *Critikon, Inc. v. Becton Dickinson Vascular Access, Inc.*, 120 F.3d 1253, 1257 (Fed. Cir. 1997) ("A patentee facing a high level of materiality and clear proof that it knew or should have known of that materiality, can expect to find it difficult to establish 'subjective good faith' sufficient to prevent the drawing of an inference of intent to mislead.")); *cf. Dayco Prods.*, 329 F.3d at 1367 ("Intent to deceive cannot be inferred simply from the decision to withhold the reference where the reasons given for the withholding are plausible."). Instead, the evidence reveals an effort on the part of the applicants to disclose to the PTO only that information relating to the Norton & Wright sale that would enhance the chances of allowance of the claims

and withhold that which would detract from them. The applicants have not provided the Court with a credible explanation for the withholding of highly material information from the examiner during the prosecution of the '616 application, and the Court concludes that the evidence clearly and convincingly supports an inference of an intent to deceive on the part of the patentees. *See Ferring*, 437 F.3d at 1191.

4. Weighing materiality and intent

Having concluded that the threshold levels of materiality and intent have been established, the Court weighs them to determine whether the equities warrant a conclusion that inequitable conduct occurred. *See Molins*, 48 F.3d at 1178. Here, the evidence demonstrates the high materiality of the undisclosed information. Thus, a lesser showing of intent to deceive on the part of the applicants is sufficient to tip the balance to unenforceability. *See Baxter*, 149 F.3d at 1327. The Court concludes the record sufficiently establishes culpable intent on the part of the applicants in withholding information regarding the Norton & Wright sale and the VOSP System and in misrepresenting the state of the art to the examiner during the prosecution of the '078 patent. *See Labounty*, 958 F.2d at 1076 (affirming lower court's finding of inequitable conduct in light of clear and convincing evidence of a culpable lack of candor on the basis of misleading arguments made to the PTO for the allowance of claims coupled with the withholding of contemporaneously known prior art which was highly pertinent to the prosecution of the patent application). Because Cognex has sufficiently demonstrated inequitable conduct by the applicants during the examination of the application leading to the '078 patent, the entire '078 patent is rendered unenforceable. *See Pharmacia*, 417 F.3d at 1374-75. Consequently, because the subject matter of the '524 patent closely relates to that of the '078 patent, the Court concludes

that the inequitable conduct in the prosecution of the '616 application taints the '524 patent and renders it unenforceable. *See Agfa*, 451 F.3d at 1379.

5. Curing the inequitable conduct

Inequitable conduct can be cured by an applicant by: (1) expressly advising the PTO of the misrepresentation's existence, (2) advising the PTO of what the actual facts are and making it clear that further examination in light thereof may be required if any PTO action has been based on the misrepresentation, and (3) establishing patentability on the basis of the factually accurate record. *See Rohm & Haas Co. v. Crystal Chem. Co.*, 722 F.2d 1556, 1572 (Fed. Cir. 1983).

Defendants have demonstrated that the applicants notified the PTO during the prosecution of the '524 patent application of a pending lawsuit in which charges of inequitable conduct during the prosecution of the '078 patent had been raised. The patentees then submitted an Information Disclosure Statement, dated November 17, 1995, which provided the summary judgment briefings and factual evidence supporting the charges of inequitable conduct raised in the pending lawsuit. Defendants contend that the submissions included all of the information now alleged by Cognex as improperly withheld during the prosecution of the '078 and '524 patent applications. Because the examiner of the application for the '524 patent had access to and indicated his consideration of the submitted information, Defendants argue that any nondisclosure of the information during the prosecution of the '078 patent has no bearing on the enforceability of the '524 patent. The Court disagrees.

Defendants have failed to provide any evidence that the patentees notified the PTO of the existence of a misrepresentation during the prosecution of the '078 patent, the first step in effectuating a cure. *See id.* Nor is there any indication that the patentees did anything more than deliver a large volume of documents to the PTO in November 1995. There is no evidence that

the patentees advised the PTO of the existence of the VOSP System information or pointed out its location within the larger submission of documents and materials. Finally, there is nothing in the record demonstrating the patentees' attempts to establish patentability on the basis of the record that included the information in the Information Disclosure Statement. While the Court does not question the examiner's consideration of the disclosed information, *see N. Telecom*, 908 F.2d at 939 ("It is presumed that public officials do their assigned jobs."), the Court notes that the patentees' disclosure was made only after a Notice of Allowance was issued by the PTO and over five years after the initial continuation application for the patent was filed in October 1989. Moreover, it was made following the examiner's clear indication that the rejection of many of the claims could be overcome and would be allowable if certain structural amendments were made to the claims and a terminal disclaimer regarding the '078 patent submitted by the patentees. On this record, the Court concludes that Defendants have failed to sufficiently demonstrate a cure of the inequitable conduct of the applicants in the prosecution of the '078 patent that would serve to prevent that conduct from tainting the '524 patent at issue in this matter. Rather, the applicants' inequitable conduct in connection with the prosecution of the '078 patent taints the continuation applications for the '524 patent and that taint renders the '524 patent unenforceable. Cognex is thus entitled to summary judgment on Count III of the First Supplemental Complaint.

D. Defendants' motion for partial summary judgment on certain asserted claims

Defendants move for partial summary judgment of infringement on asserted claims 1, 4, 5, and 29. Because all of the Asserted Claims of the '524 patent, claims 1, 4, 5, 19, 22, 25, and 27-29, have been found to be invalid, the issue of infringement of these claims is moot. *See Optivus Tech., Inc. v. Ion Bean Applications S.A.*, 469 F.3d 978, 991 (Fed. Cir. 2006) (citing

Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 1541 (Fed. Cir. 1983) (“The claims having been found invalid, the issue [of infringement] is moot.”)). Defendants’ request for summary judgment on the issue of infringement of certain asserted claims is therefore denied.

E. Defendants’ motion for partial summary judgment on claims against Acacia

In the First Supplemental Complaint, Cognex alleges that Acacia’s Vice President of Licensing, Tisha DeRaimo, sent emails that contained false and misleading statements to at least two Cognex customers who had been accused by Acacia of infringing the ’524 patent through the use of Cognex’s products. Specifically, Cognex alleges that DeRaimo sent an email to a representative of Proctor and Gamble in April 2007, which stated the following:

Your information regarding Cognex is very interesting. I hope their attorney told you that as recently as last summer, Cognex attempted to buy the ’078 and ’524 patents from Veritec for an eight-figure purchase price. In other words, they saw value in having the patents back then. But now, as Veritec has emerged out of bankruptcy and is able to enforce its rights regarding the patents, Cognex alleges the patents are invalid. It’s incongruous.

Cognex also alleges that DeRaimo sent a demand letter to a representative of Allison Payment Systems, another Cognex customer, stating that Veritec was in possession of a letter of intent evidencing an offer by Cognex to purchase the ’078 and ’524 patents for an eight-figure sum.

Cognex alleges these statements falsely represented that Cognex had recently offered to buy the patents for a substantial sum, and that Acacia made these statements in order to convince Cognex customers that they should not rely on patent invalidity contentions made by Cognex because they were insincerely made. Cognex claims it never authored any such letter of intent and that the letter was instead prepared by Veritec as a sham without the consent of Cognex. Cognex claims DeRaimo’s statements were made with the intent to cause harm to its business reputation by lowering Cognex in the estimation of the business community in which it operates and by deterring third parties from associating or dealing with Cognex. It contends the

statements undermined the credibility of Cognex in view of its published statements with respect to the invalidity of and unenforceability of the '524 patent, and were calculated to prejudice Cognex's business and cast doubt on its professed loyalty to its customers. Cognex alleges the statements violated Minn. Stat. § 325D.44, subd. 1,¹⁶ and constituted business defamation. Defendants assert that DeRaimo's statements regarding Cognex's offer to purchase the '078 and '524 patents referred to conversations between Veritec and Cognex, and that these conversations included discussions about Cognex purchasing Veritec, including its patents, for a sum of \$11 million. Defendants assert DeRaimo made the statements based on information received from Veritec and that she had no reason to believe the information was anything but true at the time she made them. Defendants move for summary judgment on both the MDTPA and business defamation claims.

1. Violation of the MDTPA

In support of their motion of summary judgment on the MDTPA claim, Defendants assert that the MDTPA is not applicable to Acacia's actions because they occurred entirely outside of Minnesota. Defendants correctly point out that the emails at issue originated at Acacia's headquarters in Newport Beach, California, and were received by Cognex customers in Cincinnati, Ohio, and Indianapolis, Indiana. Moreover, the subject of the emails, Cognex and its data-matrix reading products, is a Massachusetts company.

¹⁶ Cognex points specifically to provisions (8) and (13) of section 325D.44, subd.1, which provide as follows:

A person engages in a deceptive trade practice when, in the course of business, vocation, or occupation, the person: ... (8) disparages the goods, services, or business of another by false or misleading representation of fact; ... (13) engages in any other conduct which similarly creates a likelihood of confusion or of misunderstanding.

For a state's substantive law to be applied in a "constitutionally permissible manner, that State must have a significant contact or significant aggregation of contacts, creating state interests, such that choice of its law is neither arbitrary nor fundamentally unfair." *Jepson v. Gen. Cas. Co. of Wisc.*, 513 N.W.2d 467, 469-70 (Minn. 1994) (quoting *Allstate Ins. Co. v. Hague*, 449 U.S. 302, 312-13 (1981)). Application of a forum's law has been upheld where "relevant contacts consisted of plaintiff's residence and the place of the injury." *Allstate*, 449 U.S. at 313 n.17.

From these principles, the Court concludes that the application of the MDTPA to Acacia's actions is not constitutionally permissible because Minnesota does not have a significant contact or a significant aggregation of contacts with Acacia or its conduct. The emails were sent and received entirely outside of Minnesota by parties that are not Minnesota residents. Injury to Cognex, if any, was not sustained in Minnesota.

Cognex argues that under the doctrine of *respondeat superior* the MDTPA applies to Acacia through VData's licensing relationship with VCode, a Minnesota company.¹⁷ However, Cognex has not asserted MDTPA claims against VCode pursuant to a theory of vicarious liability. Even if a sufficient employment relationship could be established between Acacia and VCode, a finding the Court need not make here, *respondeat superior* is inapplicable unless an employer is provided sufficient notice in a claim that vicarious liability is sought. See *Waag v. Thomas Pontiac, Buick, GMC, Inc.*, 930 F. Supp. 393, 408 (D. Minn. 1996) (granting summary judgment to employer where neither the complaint nor the amended complaint alleged that

¹⁷ The doctrine of *respondeat superior* is a common law doctrine under which an employer may be vicariously liable for the torts of an employee committed within the course and scope of employment. *Urban v. Am. Legion Dep't. of Minn.*, 723 N.W.2d 1, 3 (Minn. 2006). The Court previously determined that VData, an Illinois limited liability company, is the alter ego of Acacia.

employer was vicariously liable for the actions of its employee). Here, the allegations in the First Supplemental Complaint do not assert that VCode or any other Minnesota entity is liable for the actions of Acacia under the doctrine of *respondeat superior*. Thus, the doctrine of *respondeat superior* cannot be applied to the MDTPA claim asserted by Cognex against Acacia. Defendants' motion for summary judgment on the MDTPA claim, Count IV, is granted.

2. Business Defamation

Defendants claim summary judgment is warranted on the business defamation claim against Acacia because Cognex has failed to provide proof of actual damages and none of the alleged statements qualify as defamation per se. Cognex argues that Acacia's statements to Cognex customers regarding Cognex's intentions and beliefs with respect to the '524 patent and suggesting Cognex was "incongruous" in bringing its declaratory judgment action disparages Cognex's business reputation for honesty and fair dealing. Cognex asserts that the statements therefore constitute defamation per se.¹⁸

Relying on Minnesota's choice of law principles, Cognex argues Minnesota or Massachusetts common law applies to the defamation claims against Acacia while Defendants argue that California's common law of defamation applies. Under Minnesota's choice of law rules, the first consideration is whether "the choice of one state's law over another's creates an actual conflict." *Richie v. Paramount Pictures Corp.*, 544 N.W.2d 21, 29 (Minn. 1996) (citing *Jepson*, 513 N.W.2d at 469). Where there is no true conflict, the law of the forum is applied. *Davis by Davis v. Outboard Marine Corp.*, 415 N.W.2d 719, 723 (Minn. Ct. App. 1987). Each

¹⁸ Cognex, without citation to any legal authority, also asserts it has sufficiently established economic damages by demonstrating the amount of attorney fees and costs it had to incur in proceeding with the instant declaratory judgment action in the face of Acacia's defamatory statements. Cognex asserts Acacia's statements compelled Cognex to see this litigation through to completion, which made it impossible for Cognex to negotiate a reasonable settlement with Defendants. In the absence of legal support, the Court rejects Cognex's argument.

contemplates the availability of a cause of action for damages without proof of actual economic loss. *See Cal. Civ. Code §§ 44-48* (2007) (stating that a statement is libel per se if it defames the plaintiff on its face and that if libel is defamatory per se then it is actionable without special damages); *W. Broad Co. v. Times-Mirror Co.*, 57 P.2d 977, 978 (Cal. Ct. App. 1936); *Ravnikar v. Bogojavlensky*, 782 N.E.2d 508, 510-11 (Mass. 2003) (indicating statements that may prejudice a plaintiff's profession or business are actionable without proof of economic loss); *Advanced Training Sys., Inc. v. Caswell Equip. Co.*, 352 N.W.2d 1, 10 (Minn. 1984) (indicating that a statement that tends to injure a corporation's credit, property, or business is defamatory per se and proof of special damages is not required). Consequently, the Court applies the law of the forum in this action.

A statement constitutes defamation if (1) it is communicated to someone other than the plaintiff, (2) it is false, and (3) it tends to harm the plaintiff's reputation and lower him in the estimation of the community. *See Stuempges v. Parke, Davis & Co.*, 297 N.W.2d 252, 255 (Minn. 1980). Corporate plaintiffs stand on the same footing as individuals in defamation actions. *See Advanced Training*, 352 N.W.2d at 10. To recover, a corporation must show that a defendant's written statements directly tended to prejudice it in the conduct of its business or to deter third persons from dealing with it, and the corporation need not prove any special pecuniary damages to do so. *Id.* at 9-10. "Whether a defamatory meaning is conveyed is dependent upon how an ordinary person understands 'the language used in the light of surrounding circumstances.'" *Harman v. Heartland Food Co.*, 614 N.W.2d 236, 240 (Minn. Ct. App. 2000) (quoting *Gadach v. Benton County Co-op. Ass'n*, 53 N.W.2d 230, 232 (Minn. 1952)). Statements alleged to be defamatory that cannot be proven false or which cannot

reasonably be interpreted as stating facts are not actionable. *Huyen v. Driscoll*, 479 N.W.2d 76, 80 (Minn. Ct. App. 1991).

There is no dispute between the parties that DeRaimo made the allegedly false statements to third parties. Moreover, DeRaimo admitted during her deposition that one of her objectives in mentioning Cognex's alleged offer to purchase the '078 and '524 patents was to suggest that Cognex was not sincere in its contentions that the '078 and '524 patents were invalid and not infringed. This motive is direct evidence that the statements were made with the intent to prejudice Cognex in the conduct of its business and to deter Cognex's customers from continuing to believe Cognex's representations regarding the validity of the patents and refusing to purchase a license from Acacia. However, questions of fact regarding the veracity of DeRaimo's statements remain unresolved. There is conflicting testimony regarding the nature and substance of the discussions between Cognex and Veritec regarding purchase of Veritec, during the time that Veritec was involved in bankruptcy proceeding, or purchase of the '078 and '524 patents by Cognex. Factual disputes also remain regarding the circumstances surrounding the creation of the letter of intent referred to by DeRaimo. Because factual questions for the jury remain, Defendants' motion for summary judgment on Cognex's business defamation claim against Acacia is denied.

F. Remaining Claims

The remaining claims are Count I, which is not presently before the Court, and Count V, Cognex's business defamation claim against Acacia.¹⁹ Should the parties wish to file dispositive motions concerning these remaining claims so as to minimize a delay in seeking appellate review, the Court grants the parties leave to file and brief any such motion pursuant to the

¹⁹ The Court also notes that there is no pending motion for dismissal of the Counterclaim asserted by VCode and VData.

following briefing schedule: (1) motion and opening memorandum of law filed and served no later than June 6, 2008; (2) response memorandum filed and served no later than June 13, 2008; and (3) reply memorandum filed and served no later than June 20, 2008. Absent a determination by the Court that a hearing on any such motion is necessary, any such motion shall be decided on the submitted papers.

III. CONCLUSION

Based on the files, records, and proceedings herein, and for the reasons stated above, IT IS ORDERED THAT:

1. Defendants' Motion for Partial Summary Judgment on the Issues of (A) Infringement of Certain Claims of U.S. Patent No. 5,612,524; (B) Defamation and (C) Minnesota DTPA [Docket No. 180] is GRANTED IN PART, DENIED IN PART, and DENIED IN PART AS MOOT.
2. Plaintiff's Motion for Partial Summary Judgment on Count II of its First Supplemental Complaint/Invalidity [Docket No. 192] is GRANTED.
3. Plaintiff's Motion for Partial Summary Judgment on Count III of Its First Supplemental Complaint/Unenforceability [Docket No. 196] is GRANTED.
4. Claims 1, 4, 5, 19, 22, 25, 27, 28, and 29 of U.S. Patent No. 5,612,524 (filed March 18, 1997) are declared invalid.
5. U.S. Patent No. 5,612,524 (filed March 18, 1997) is declared unenforceable.
6. Cognex's claim against Acacia Research Corporation for violation of the Minnesota Uniform Deceptive Trade Practices Act, Minn. Stat. §§ 325D.43-.48, is dismissed with prejudice.

Dated: May 19, 2008

s/ Joan N. Erickson
 JOAN N. ERICKSEN
 United States District Judge